

From *Muller v. Oregon* to Fetal Vulnerability Policies

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In recent years, a number of corporations have adopted policies restricting the employment of women because of fetal vulnerability to toxic chemicals or ionizing radiation. The scope of these policies is influenced by the sexual composition of the work force. When the work force is predominantly male, some employers exclude all fertile women from hazardous jobs.¹ When the work force is predominantly female, some employers exclude only pregnant women from hazardous jobs.²

Fetal vulnerability policies pose conflicts of interests, rights, and responsibilities. Women do not want traditionally male, high-paying jobs closed to them because they have not been sterilized.³ Pregnant women often have strong interests in continued employment. Employers have interests in not causing harm to workers' potential offspring and in avoiding the possible tort liability associated with such harm. Women, employers, and society in general have an interest in minimizing birth defects.

Some employers have concluded that women's interest in working must yield to protecting the health of their unborn or even "unconceived" children. Commentators and the United

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¹ See, e.g., Judith A. Scott, *Keeping Women in Their Place*, in Wendy Chavkin, ed., *Double Exposure* 180-82 (1984); Jeanne Mager Stellman and Mary Sue Henifin, *No Fertile Women Need Apply*, in Ruth Hubbard, ed., *Biological Woman—The Convenient Myth* 117, 120 (1982); Jeanne Mager Stellman, *Women's Work, Women's Health* 183 (1977).

² See, e.g., Scott, *Keeping Women in Their Place* at 182 (cited in note 1) (fertile women are not excluded from female-dominated jobs); Stellman, *Women's Work, Women's Health* at 183 (cited in note 1); *Hayes v. Shelby Memorial Hospital*, 726 F.2d 1543, 1550 n.11 (11th Cir. 1984) (pregnant x-ray technician fired by hospital that employs only women as x-ray technicians).

³ It is not certain that employers would accept evidence of sterility other than proof of surgical sterilization. See note 39 and accompanying text below. American Cyanamid Co. requires evidence of surgical sterilization. See note 39 below.

States Courts of Appeals for the Fourth and Eleventh Circuits have balanced these competing interests in light of Title VII's ban on sex and pregnancy discrimination. These courts⁴ and most commentators⁵ have concluded that "reasonable" policies excluding pregnant or fertile women are permissible if there is a relevant difference between the risks associated with maternal and paternal exposure.⁶ This article challenges this generally accepted view.

At first glance, most people presented with this issue (myself included) assume that "reasonable" restrictions on maternal employment must be appropriate in some circumstances for the protection of fetuses. From the beginning of this project, however, I thought it odd that Title VII would prohibit state legislation "protecting" only women workers, while allowing private employers to adopt policies protecting potential offspring from the risks associated only with maternal employment.

When I explored the issue in greater depth, I was surprised by the similarities between the contemporary debate over fetal vulnerability policies and the earlier debate over sex-specific protectionist legislation. Despite the enactment of Title VII, little seems to have changed when the question is whether to limit women's

⁴ Hayes, 726 F.2d at 1543; *Wright v. Olin Corp.*, 697 F.2d 1172 (4th Cir. 1982).

⁵ Consider, e.g., Shelley Reed Logan, *Adapting Fetal Vulnerability Programs to Title VII: Wright v. Olin*, 9 Employee Rel. L. J. 605 (1984); Lois Vanderwaert, *Resolving the Conflict Between Hazardous Substances in the Workplace and Equal Employment Opportunity*, 21 Amer. Bus. L. J. 157 (1983); Wendy W. Williams, *Firing the Woman to Protect the Fetus: The Reconciliation of Fetal Protection with Employment Opportunity Goals under Title VII*, 69 Ga. L. Rev. 641 (1981); Gary Z. Northstein and Jeffrey P. Ayres, *Sex-Based Considerations of Differentiation in the Workplace: Exploring the Biomedical Interface Between OSHA and Title VII*, 26 Vill. L. Rev. 239 (1981); Hannah Artenan Furnish, *Prenatal Exposure to Fetally Toxic Work Environments: The Dilemma of the 1978 Pregnancy Amendment to Title VII of the Civil Rights Act of 1964*, 66 Iowa L. Rev. 63 (1980); Donald R. Crowell II and David A. Copus, *Safety and Equality at Odds: OSHA and Title VII Clash over Health Hazards in the Workplace*, 2 Ind. Rel. L. J. 567 (1978); Note, *Exclusionary Employment Practices in Hazardous Industries: Protection or Discrimination?*, 5 Colum. J. Envtl. L. 97 (1978).

A few commentators have construed Title VII strictly, relying on language in cases interpreting the BFOQ defense in other settings. These commentators conclude that some or all sex-specific fetal vulnerability policies violate Title VII. See, e.g., Patricia A. Timko, *Exploring the Limits of Legal Duty: A Union's Responsibilities with Respect to Fetal Protection Policies*, 23 Harv. J. Legis. 159 (1986); Vibia M. Andrade, *The Toxic Workplace: Title VII Protection for the Potentially Pregnant Person*, 4 Harv. Women's L. J. 71 (1981); Note, *Employment Rights of Women in the Toxic Workplace*, 65 Cal. L. Rev. 1113 (1977).

⁶ A similar approach was taken by the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance, and the Department of Labor in proposed, and subsequently withdrawn, guidelines. See Proposed Interpretive Guidelines on Employment Discrimination and Reproduction Hazards, 45 Fed. Reg. 7514 (Feb. 1, 1980), as corrected, 45 Fed. Reg. 16501 (Mar. 14, 1980). The guidelines were withdrawn in 1981. 46 Fed. Reg. 3916 (Jan. 16, 1981).

employment opportunities for the good of their potential children. In both debates, for example, proponents of sex-specific policies assert as uncontroversial that women's interests should give way to the interests of the next generation. I was also surprised by the unusual Title VII analysis used by courts to hold that sex-specific policies do not necessarily violate Title VII.

In this article, I examine the proponents' justifications for fetal vulnerability policies and the legality of the policies under Title VII.⁷ I begin by offering a critical perspective on proponents' arguments because one's view of the legality of sex-specific fetal vulnerability policies under Title VII seems to depend on whether one accepts these arguments as compelling. When judges construe statutes in bizarre ways, they likely do so for a purpose: to reach a result they consider expedient. I therefore begin section I with an examination of the arguments that were once advanced to support sex-specific labor legislation and compare these arguments to the arguments advanced today to support sex-specific fetal vulnerability policies. I point out many troubling similarities between the two debates, similarities that counsel against a casual acceptance of sex-specific fetal vulnerability policies.

In section II, I consider the legality of sex-specific fetal vulnerability policies and conclude that they violate Title VII. Sex-specific policies should be held impermissible in the absence of further congressional action. In section III, I discuss why, if sex-specific policies are ever needed, Congress would be a better decision maker than individual employers, even with judicial review of employer decisions for "reasonableness."

I. THE REALITY OF DISCRIMINATION

A. The Arguments for Sex-Specific Protectionist Legislation

During the latter half of the nineteenth century and the early decades of this century, most state legislatures adopted legislation "protecting" women workers and hence the next generation of chil-

⁷ I assume throughout that our society has accepted as a norm a ban on sex discrimination in employment. Whether such a norm is appropriate or desirable is a matter beyond the scope of this paper. For a strong defense of freedom to contract in employment, consider Richard A. Epstein, *In Defense of the Contract at Will*, 51 U. Chi. L. Rev. 947 (1984). For other discussions of such issues, see, e.g., Daniel R. Fischel and Edward P. Lazear, *Comparable Worth and Discrimination in Labor Markets*, 53 U. Chi. L. Rev. 891 (1986); Mary E. Becker, *Barriers Facing Women in the Wage-Labor Market and the Need for Additional Remedies: A Reply to Fischel and Lazear*, 53 U. Chi. L. Rev. 934 (1986); James D. Holzhauser, *The Economic Possibilities of Comparable Worth*, 53 U. Chi. L. Rev. 919 (1986).

dren.⁸ These statutes took a number of forms. Many limited the number of hours women could work or the number of days women could work in a row. Some required that women be given time for rest periods and lunch. Others prohibited the employment of women in certain industries and occupations or limited women to daytime work.⁹

Whether in the aggregate sex-specific protectionist legislation helped or hurt women is probably unknowable.¹⁰ Today, however, much of the reasoning and rhetoric supporting sex-specific protectionist legislation sounds sexist.¹¹

Consider, for example, the case of *Muller v. Oregon*.¹² In *Muller*, the Supreme Court upheld an Oregon statute that prohibited the employment of any woman for more than ten hours a day "in any mechanical establishment, or factory, or laundry in this State."¹³ Three years earlier in *Lochner v. New York*,¹⁴ the Court had held unconstitutional a similar statute, covering both male and female workers. But, in *Muller*, Chief Justice Brewer explained that a statute restricting only the employment of women was permissible because "healthy mothers are essential to vigorous offspring, [and] the physical well-being of woman becomes an object of public interest and care in order to preserve the strength and vigor of the race."¹⁵ In upholding the legislation, the Court noted that the restrictions were not imposed solely for her benefit, but "also largely for the benefit of all."¹⁶ The Court did not discuss the economic consequences of the statute for women who might need

⁸ See Florence P. Smith, Chronological Development of Labor Legislation for Women in the United States, United States Department of Labor, Women's Bureau, Bulletin No. 66-II at 137-285 (rev. ed. 1932) (providing a state by state chronological history).

⁹ *Id.*

¹⁰ Although some women opposed special legislation for women, many of those who supported such legislation were women and men sympathetic to the needs of working women. Such legislation could, and sometimes did, improve the options available to working women. See Clara M. Beyer, History of Labor Legislation for Women in Three States, United States Department of Labor, Women's Bureau, Bulletin No. 66 at 17 (1929).

¹¹ This discussion of sex-specific protectionist legislation is narrow and ignores many fascinating and complex aspects of the era, the debate, the effects, and so on. For fuller discussions, see Judith A. Baer, *The Chains of Protection* 14-106 (1978); Deborah L. Rhode, *Feminist Theory and Legal Thought* ch. 5 (forthcoming); Kathryn Kish Sklar, *Hull House in the 1890s: A Community of Woman Reformers*, 10 *Signs* 658 (1985); Note, *Constitutional Law—Regulation of Conditions of Employment of Women: A Critique of Muller v. Oregon*, 13 *Bost. U. L. Rev.* 276 (1933).

¹² 208 U.S. 412 (1908).

¹³ *Id.* at 416-17.

¹⁴ 198 U.S. 45 (1905).

¹⁵ 208 U.S. at 421.

¹⁶ *Id.* at 422.

night work, but it did note that "woman has always been dependent upon man."¹⁷

The Brandeis brief filed in the New York case of *People v. Charles Schweinler Press*¹⁸ details the arguments for limiting the employment of women. At issue was a New York statute forbidding the employment of women for night shift work in factories and laundries. The brief describes problems associated with "deprivation of sunlight,"¹⁹ the difficulty of getting adequate rest during the day,²⁰ high morbidity and mortality among night workers,²¹ the dangers of returning home at night,²² the moral dangers associated with night work,²³ and the difficulty of combining motherhood and domestic responsibilities with night work.²⁴ Most of the problems discussed in the brief affected male as well as female workers; indeed, much of the specific evidence cited by Brandeis described male workers.²⁵ Moreover, the brief included evidence that night work had detrimental effects on the families of male workers²⁶ and on male reproductive capacity.²⁷ In addition, the

¹⁷ Id. at 421. Women's natural dependency was the basis on which the Court distinguished *Lochner*: even if "she stood, so far as statutes are concerned, upon an absolutely equal plane with him, it would still be true that she is so constituted that she will rest upon and look to him for protection." Id. at 422.

¹⁸ 214 N.Y. 395, 108 N.E. 639 (1915).

¹⁹ A Summary of "Facts of Knowledge" Submitted on Behalf of the People in Support of its Brief, *People of the State of New York v. Charles Schweinler Press* 97-111 (prepared by Louis D. Brandeis and Josephine Goldmark) ("Facts of Knowledge").

²⁰ Id. at 54-96.

²¹ Id. at 111-55.

²² Id. at 252-60.

²³ Id. at 226-52 (night work causes exhaustion, which leads to drinking, and the close association of men and women at night leads to sexual temptation).

²⁴ Id. at 121, 125, 138-39, 141, 174-97, 213-26.

²⁵ See, e.g., id. at 112-13, 124-27, 134, 147-49, 151, 153-54 (male night workers experience high morbidity and mortality); id. at 56, 58-59, 60-63, 64, 71 (male night shift workers have difficulty getting adequate sleep). According to one report summarized in the Facts of Knowledge, married women who worked at night slept an average of only four and one half hours a day; another report described male workers who "fitfully" slept only two or three hours. Id. at 56.

²⁶ See id. at 219 ("real home life" impossible for male night workers), 223-24 (families of male night workers suffer severely), 232-33 (men who work at night sleep and drink during the day; night work brutalizes the male worker, who often is driven to intemperance and stops working).

In the brief filed by the defendant in error in *Bunting v. Oregon*, 243 U.S. 426 (1917) (challenging a ten-hour work day law applicable to men and women), Frankfurter and Brandeis present additional evidence that exhausted male workers are unlikely to have the energy necessary for a good family life. The Case for the Shorter Work Day, Brief for Defendant in Error in *Bunting v. Oregon* 452-70, printed in U.S. Supreme Court Briefs and Records, 243 U.S. 426-443 (submitted by Felix Frankfurter and Josephine Goldmark, prepared in part by Louis D. Brandeis) ("The Case for the Shorter Work Day").

problems associated with women's work at night—such as the danger of walking home—were as likely to arise when women worked in occupations from which they were not excluded by legislation.

Thus, the problems assertedly addressed by the legislation were peculiar neither to women nor to factory and laundry work at night. At bottom, the argument for the limitation was based, not on empirical evidence of special hazards for women and their families, but on general assertions that factory and laundry work was difficult, that night shift work was especially taxing, that women were weaker than men, and that the strength of women should be protected for the future of the race.²⁸ Brandeis asserted, without discussion, that the state was justified in resolving any conflict between women's interest in wage work and society's interest in the domestic and reproductive responsibilities of women in favor of the latter.²⁹

The brief does not discuss why women might not be able to make competent decisions about night work in factories and laundries, weighing their actual alternatives in light of their needs and the needs of their dependents. On this point, the brief merely quotes a New York Factory Investigative Commission's conclusion that "only a few of the women seemed to realize that this combination [of night work and family responsibilities] might prove disastrous. . . . Ignorant women can scarcely be expected to realize the dangers not only to their own health but to that of the next generation from such inhuman usage."³⁰

Several aspects of these arguments are troubling. First, supporters of sex-specific labor legislation did not consider the alternatives available to working women and the effects of those alternatives on the workers and their families. Women were seen as uniformly dependent on men, and women's financial contributions to their families as less important than their biologic and domestic contributions. Second, women were not regarded as individuals—who might not have domestic responsibilities for others or

²⁷ The Facts of Knowledge asserts that male night workers were likely to drink to relieve their fatigue. See Facts of Knowledge at 232-33, 241, 244-46 (cited in note 19). As one commentator has noted, "[n]either fatigue nor alcohol separately, let alone in combination, is a stimulus to 'procreative power,' as authorities as diverse as Shakespeare and Dr. David Rubin have pointed out." Baer, *The Chains of Protection* at 79-80 (cited in note 11).

The brief also contains a physician's statement that "[t]he procreative power of men is diminished or impaired" by nightwork, and a statement by a miner that after a month of night work, he was "only half a man." Facts of Knowledge at 155, 124.

²⁸ Facts of Knowledge at 8, 490.

²⁹ *Id.* at 483, 490.

³⁰ *Id.* at 175-76.

even the capacity to reproduce—or as having any autonomous interests apart from their families' interests. Instead, all women were seen only in terms of the biologic and domestic responsibilities associated with motherhood.³¹ Third, proponents were willing to place restrictions on women without firm scientific evidence of any need for the restrictions. Fourth, women were excluded only when they were dispensable. No state passed a statute banning all night work for women because of the dangers of walking home at night. Women were too important as hospital workers, for example, to merit such broad "protection."³² Fifth, supporters dismissed out of hand the possibility that women might be competent decision makers.

In short, the exclusion of women from certain employment opportunities depended on the perception that wage work by women was marginal in every sense. It was of marginal importance to the woman and her family (whose primary supporter would naturally be a husband and father) and of marginal importance to industry and to society.

Today, state protective legislation no longer is enforceable. Since 1969, courts have uniformly held that sex-specific state labor statutes are preempted by Title VII of the Civil Rights Act of 1964, which bans discrimination in employment on the basis of sex or pregnancy.³³ Courts have been more tolerant of policies adopted by employers, restricting the opportunities of fertile or pregnant women, to protect the future of the race. Yet troubling aspects of the earlier debate reappear in the contemporary controversy.

B. The Similar Arguments for Sex-Specific Fetal Vulnerability Policies

During the 1970s, employers were under considerable pressure from the Equal Employment Opportunity Commission and the Office of Federal Contract Compliance to admit women into traditionally male, unionized, blue-collar jobs. As women began to move

³¹ In contrast, in arguing for limits on the number of hours men could work, Brandeis and Frankfurter stressed that shorter days were necessary to afford male workers "opportunities for self-improvement or legitimate enjoyment." See *The Case for the Shorter Work Day* at 499-531 (cited in note 26).

³² See Stellman, *Women's Work* at 176-77 (cited in note 1).

³³ See, e.g., *Rosenfield v. Southern Pacific Co.*, 444 F.2d 1219 (9th Cir. 1971); *Manning v. General Motors Corp.*, 3 Fair Empl. Pract. Cases 968 (N.D. Ohio 1971), *aff'd*, 466 F.2d 812 (6th Cir. 1972); *Ridinger v. General Motors Corp.*, 325 F. Supp. 1089 (S.D. Ohio 1971), *rev'd* on other grounds, 474 F.2d 949 (6th Cir. 1972); Baer, *The Chains of Protection* at 167 (cited in note 11).

into such jobs in significant numbers for the first time, a number of companies adopted very restrictive fetal vulnerability policies. Among the companies were Olin, American Cyanamid, Allied Chemical, B.F. Goodrich, Monsanto, Sun Oil, Gulf Oil, Union Carbide, General Motors, Delco-Remy, St. Joe's Minerals, Bunker Hill, and ASARCO. Their policies exclude all fertile women from traditionally male jobs involving "excessive" exposure to a number of chemicals, including lead, benzene, vinyl chloride, carbon tetrachloride, carbon monoxide, mercury, and carbon disulfide.³⁴ In order to preserve their jobs, at least five women at American Cyanamid chose to be sterilized.³⁵

In 1979, the number of jobs from which fertile women were excluded because of these policies was conservatively estimated at 100,000 and upwards.³⁶ Since then, such policies have become more common,³⁷ but current estimates of the number of jobs they cover are not available. The number of jobs involving exposure to such chemicals, and from which women could be excluded were such policies more generally adopted, is much higher, perhaps as high as twenty million.³⁸

The Olin Corporation's fetal vulnerability policy is typical of

³⁴ See Scott, *Keeping Women in Their Place* at 180 (cited in note 1); Williams, 69 Ga. L. Rev. at 648 (cited in note 5); Margaret Seminario, *Women Workers: Hazards on the Job*, AFL-CIO American Federationist 18, 22 (Aug. 1978).

³⁵ Office of Technology Assessment, *Reproductive Health Hazards in the Workplace* 184 (1985) ("Reproductive Health Hazards"). Several months after these sterilizations, the restricted departments were closed for other reasons. See Scott, *Keeping Women in Their Place* at 180 (cited in note 1).

³⁶ Williams, 69 Ga. L. Rev. at 647 n.29 (cited in note 5). "[A]t least 15 of the Fortune 500 as well as numerous hospitals" have sex-specific fetal vulnerability policies. *Reproductive Health Hazards* at 235 (cited in note 35).

The number of jobs from which women are effectively barred is significantly higher than the number of jobs from which women are formally excluded. Often, jobs from which women are excluded are part of a line of progression under a union contract. In *Olin*, for example, only twelve of 265 jobs were closed to all fertile women. But "[a]t least five of the eleven lines of progression in the film division [were] affected by the policy." 697 F.2d at 1182. Without experience in the restricted job, a woman cannot advance to higher jobs in the line of progression, even though those jobs might not be formally closed to her.

Sometimes, the effect of an exclusionary policy limiting exposure to certain chemicals is to effectively deny any employment to fertile women at a certain plant. For example, because lead is present throughout GM's battery plants, the company's policy "virtually forecloses the employment of women altogether." Scott, *Keeping Women in Their Place* at 181 (cited in note 1).

³⁷ See *Reproductive Health Hazards* at 244 (cited in note 35).

³⁸ See *Interpretive Guidelines*, 45 Fed. Reg. at 7514 (cited in note 6). Many of these jobs are, however, traditionally female jobs. As discussed elsewhere, policies excluding all fertile women have not been adopted (and are not likely to be adopted in the future) when jobs are held by significant numbers of women. See, e.g., text accompanying notes 90-104 below.

the policies excluding all fertile women from predominantly male jobs. Under the Olin policy, adopted in 1978, no woman between the ages of 5 and 63 can work in certain "restricted" jobs unless a medical doctor "confirms" that she cannot become pregnant.³⁹ Restricted jobs involve exposure at or above certain levels⁴⁰ to chemicals "known [to cause] or suspected" of causing miscarriages or birth defects.⁴¹

Some employers have restricted the employment opportunities of pregnant women holding women's jobs to protect fetal health. For example, Shelby Memorial Hospital adopted a policy under which pregnant x-ray technicians were fired.⁴² There are no available estimates of the number of jobs from which pregnant women are excluded.

Employers adopting sex-specific fetal vulnerability policies argue that conservative policies are necessary to "avoid even the remote chance that [women] would receive close to the permissible level [of exposure] to the fetus."⁴³ Employers urge that a good faith belief that a policy promotes fetal health should insulate an employer from liability for sex or pregnancy discrimination under

³⁹ 697 F.2d at 1182. It is not clear what kind of evidence would "confirm" that a woman between these ages cannot become pregnant. At *American Cyanamid*, any woman between the ages of 16 and 50 was deemed "to be of childbearing capacity unless she presented proof that she had been surgically sterilized." *Oil, Chemical, and Atomic Workers v. American Cyanamid Co.*, 741 F.2d 444, 446 (D.C. Cir. 1984).

⁴⁰ According to *American Cyanamid's* medical director, Olin set fertile-female exposure limits for various chemicals at one-half the present adult exposure limits on the basis of "educated guessing." See letter dated Dec. 13, 1977 from Robert M. Clyne, Corporate Medical Director, *American Cyanamid Co.*, to J. Cassutot, M.D., General Medical Director, *Western Electric Co.* ("Clyne Letter"), reprinted in part in the Reply Brief of the American Civil Liberties Union Women's Rights Project, et al. at 17 n.25 ("*Olin* ACLU Brief"), also reprinted in part in *Reproductive Health Hazards* at 255 (cited in note 35). *American Cyanamid* used an "ultraconservative" approach and "educated guessing" in setting the fertile-female exposure limits at even smaller fractions of present adult exposure limits. See *Reproductive Health Hazards* at 255.

⁴¹ 697 F.2d at 1182 (emphasis added). Some jobs involving more limited exposure to such agents are classified as "controlled." Fertile but nonpregnant women are allowed to hold controlled jobs, but decisions about the continued employment of pregnant women in these jobs are made on a case by case basis. *Id.*

⁴² *Hayes*, 726 F.2d at 1543. See also *Zuniga v. Kleberg County Hospital*, 692 F.2d 986 (5th Cir. 1982) (pregnant x-ray technician fired). According to the brief of Shelby Memorial Hospital on appeal in *Hayes*, "[i]n other hospitals, pregnant technicians are asked [sic] to resign as a matter of hospital policy." Brief of Appellant Shelby Memorial Hospital at 10 ("*Shelby Hospital Brief*"). The University of Alabama Hospital in Birmingham has adopted a less restrictive policy, limiting the exposure of pregnant technicians to radiation but not firing them. *Id.* at 10-11.

⁴³ *Shelby Hospital Brief* at 12 (quoting expert testimony about policy at another hospital). See also *Clyne Letter* (cited in note 40).

Title VII.⁴⁴

In part, employers justify this standard by reference to their potential tort liability for injury to the children of women workers. Because Title VII does not allow differential treatment of women on the basis of financial considerations, employers also argue that they have a moral, humanitarian duty to avoid injuring the next generation.⁴⁵ Employers regard the unconceived or unborn child as a member of the public who has no interest in its mother's continued employment. The Synthetic Organic Chemical Manufacturers Association put it this way: "Since the fetus derives no primary benefit from its unknown or known presence in the workplace, it should not be exposed to excessive risks."⁴⁶ Employers have casually asserted as uncontroversial that the interests of the potential fetus rank "above those of the mother/worker,"⁴⁷ and that limited employment opportunity for women "is a small price for mothers, potential mothers, and society to pay."⁴⁸

Two additional arguments are advanced to support the exclusion of all fertile women from certain jobs. First, although the risk of fetal damage (other than early spontaneous abortion, which the mother may not even notice) is low at the very beginning of pregnancy, a fetus might be exposed beyond that period before the mother knows that she is pregnant.⁴⁹ Second, some chemicals (the

⁴⁴ See, e.g., Brief for Appellee Olin Corp. at 22-25 ("Olin Brief") (arguing that a fetal vulnerability policy excluding fertile women is permissible if the employer has a legitimate, non-discriminatory reason for the policy, such as concern for fetal safety). See also Shelby Hospital Brief at 24-26 (same).

Employers argue that their good faith belief that maternal exposure poses risks to fetuses should be sufficient to impose on fertile women all the costs of protecting these *potential* third parties. Employers have argued successfully for a quite different standard when OSHA has sought to impose the costs of an *existing* third party's (worker's) safety on employers. In *Industrial Union Dept. v. American Petrol. Inst.*, 448 U.S. 607 (1980), employers argued that the cost of worker safety could be imposed on employers only when there is real evidence of health risks, not simply when OSHA, in good faith, believes that (scientifically unproven) risks exist. The Court agreed.

⁴⁵ See Shelby Hospital Brief at 5; Olin Brief at 22-25; Ronald Bayer, *Reproductive Hazards in the Workplace: Bearing the Burden of Fetal Risk*, 60 *Health & Society* 633, 644 (1982) (describing industry comments on proposed, and withdrawn, EEOC-OFCC-DOL guidelines on fetal vulnerability policies (cited in note 5)).

⁴⁶ Bayer, 60 *Health & Society* at 644 (cited in note 45) (quoting the Synthetic Organic Chemical Manufacturers Association).

⁴⁷ *Id.* at 644 (quoting the Equal Employment Opportunity Advisory Council's comments filed on EEOC-OFCC-DOL proposed guidelines on fetal vulnerability policies).

⁴⁸ *Id.* at 644 (quoting the Synthetic Organic Chemical Manufacturers Association).

⁴⁹ *Amicus Curiae* Brief filed on behalf of Olin by the Equal Employment Advisory Council, the Chemical Manufacturers Association, Lead Industries Association, Inc., and American Cyanamid Co. at 41-43 ("*Olin Industry Brief*"). Employers have not argued that sex-specific fetal vulnerability policies are justified by the risk of early spontaneous abor-

most common example being lead) are retained by the body for considerable periods of time, so that exposure prior to pregnancy may cause fetal harm even though no exposure occurs during pregnancy.⁵⁰

Each of the troubling aspects of sex-specific protectionist legislation recurs in the contemporary debate over fetal vulnerability policies: the refusal to consider the effects of policies on women, the identification of women with (and only with) reproductive functions, the willingness to limit women's employment opportunities without evidence that women's employment poses real risks to others, the exclusion only of women perceived as marginal workers, and the assumption that women are not competent decision makers.

1. *Actual alternatives.* The economic impact of fetal vulnerability policies on individual women and their dependents can be severe. When a pregnant worker is fired to ensure fetal safety, the result may be unemployment and loss of employment-related benefits. Other policies exclude fertile women from traditionally male blue-collar jobs,⁵¹ and these positions tend to pay more than many traditionally female jobs.⁵² Unless a woman is willing to be sterilized, she may be effectively excluded for life.⁵³ With an ever-greater proportion of households headed by women and with an increasing proportion of these households in poverty,⁵⁴ entry into traditionally male, high-paying positions is important to women

tions. Employer liability for such incidents would be limited; the female worker would usually be able to seek (at most) medical expenses and disability benefits for any period of temporary disability under the applicable workers' compensation system. In addition, the combination of Title VII and *Roe v. Wade*, 410 U.S. 113 (1973), would make it difficult to justify exclusionary policies based on such risks.

⁵⁰ *Olin Industry Brief* at 20-21, 43 (cited in note 49).

⁵¹ See Williams, 69 Ga. L. Rev. at 649 (cited in note 5).

⁵² According to 1983 data, women working full time for wages earn, on the average, 62 percent as much as men working full time for wages. Rita Ricardo-Campbell, *Women and Comparable Worth* 1 (1985). This represents an increase from the 59 percent figure for earlier years. *Id.*

⁵³ It would be difficult for a middle-aged woman to break into a traditionally male blue-collar job for which she has no experience.

⁵⁴ Between 1960 and 1980, the percentage of female-headed families rose from 9.2 percent to 13.9 percent. During that period, the percentage of families below the poverty line that were female-headed rose from 21.3 percent to 43.8 percent. The number (and proportion) of poor female-headed families rose sharply while the number (and proportion) of poor families declined sharply. See I 1980 Census of Population, Chapter C, General Social and Economic Characteristics, Part 1, United States Summary PC 80-1-C1, Table 96 (1983).

Divorced women with custody of their children (even if above the official poverty line), often have difficulty supporting themselves and their children on women's wages. For general discussion, see Lenore J. Weitzman, *The Divorce Revolution* (1985).

and their dependents.

Yet, as in the earlier debate over sex-specific protectionist legislation, proponents advocate limits on maternal employment without considering the alternatives actually open to the excluded women and the negative effects of those alternatives on the workers and their families. In *Hayes v. Shelby Memorial Hospital*, for example, the hospital medical director recommended firing a pregnant x-ray technician to protect fetal health, without regard to the financial effect his decision would have on the pregnant woman and her child. Alternative employment would be difficult for a pregnant woman to find. Hayes may have lost both her only source of income and her health insurance. Good medical care during pregnancy and at childbirth is especially important from the child's point of view; Hayes's child thus might have faced higher risks as a result of maternal unemployment than it would have faced had Hayes continued to work.⁵⁵ The medical director did not know Hayes personally and knew little about her other than that she was pregnant.⁵⁶ He fired her because he considered *any* exposure of a pregnant woman to ionizing radiation "excessive."⁵⁷ Thus, he assumed that every pregnant woman's reproductive role is more important than her economic role.

Similar points can be made when all fertile women are excluded from an employer's work force. A fertile woman excluded from a traditionally male job may take another job that is as dangerous to her potential children but pays lower wages because it is dominated by female workers.⁵⁸ Mother and children may receive

⁵⁵ See David Rush, Socioeconomic Status and Perinatal Outcome, in Silvio Aladjem and Audrey K. Brown, eds., *Prenatal Intensive Care* 14, 14-17 (1977) (discussing, among other things, striking relationship between changes in the unemployment rate and changes in infant mortality rate).

⁵⁶ See *Shelby Hospital Brief* at 13 (cited in note 42).

⁵⁷ See *Brief of Plaintiff-Appellee* at 11 ("*Hayes Plaintiff Brief*") (quoting trial testimony of medical director, who also considered "excessive" a sunbath by a pregnant woman in a bikini).

⁵⁸ For example, Vicky Read was fired from a \$4.70 per hour job with St Joe's Mineral, a job involving exposure to lead. At her prior job, working for a hospital for the elderly (where exposure to viral infections would threaten the outcome of pregnancy), she had earned \$2.50 an hour. Vicky Read was twenty-two years old and the sole supporter of a young child and a husband, blind in one eye, who was having trouble finding employment. The company adopted a fetal vulnerability policy, and though Read had no intention of getting pregnant (because she could not afford it even at the higher pay of the dangerous job), she was given the choice of being sterilized or transferring to janitorial and yard work at reduced pay. Dorothy McGhee, *Workplace Hazards: No Women Need Apply*, *The Progressive* 20 (Oct. 1977).

Read reported: "I couldn't decide how we were going to afford to live, really. Jobs just aren't that easy to find around here. We have an 8 per cent unemployment rate in Pennsyl-

worse health care than they would receive were the mother employed in a more dangerous job with better medical insurance.

There are countless other ways in which fetal vulnerability policies may make women and their children worse off in terms of health.⁵⁹ A woman earning a higher wage may be less likely to live in an old, poorly maintained apartment in which her children are exposed to lead paint. Both the woman and her children are more likely to suffer malnutrition if she does not have a well-paying job.⁶⁰ For a pregnant woman, commuting by public transportation may be more hazardous to the fetus than commuting by car;⁶¹ a woman with a higher-paying job is more likely to be able to afford a car. Excessive heat can have detrimental effects on pregnancy, and a mother in a higher paying job is more likely to be able to afford air conditioning.⁶²

In addition, fetal vulnerability policies perpetuate existing patterns of job segregation, the common explanation for a substantial part of the male-female wage gap. For the woman's living and potential female children, the continued segregation of women in women's jobs may not be a matter of indifference.

2. *Perception of women.* In the earlier debate, women were not seen as individuals in a variety of situations or as having au-

vania. It's bad, really bad. I was hurt. I worked hard in that plant to show that I could do it." Id. at 21.

⁵⁹ See, e.g., Sanford Meyerowitz and Mack Lipkin, Jr., Psychosocial Aspects, in Robert L. Brent and Maureen I. Harris, eds., 3 *Prevention of Embryonic, Fetal, and Perinatal Disease* 263, 267 (1976) (discussing correlation between "[a]dverse economic, social and family circumstances for the pregnant woman" and "pregnancy complications, prematurity, low birth weight and subsequent developmental problems for their infants"); R. A. Chez, D. Haire, E. J. Quilligan, and M. B. Wingate, High-Risk Pregnancies: Obstetrical and Perinatal Factors, in Brent and Harris, eds., 3 *Prevention of Disease at 70-72* (discussing correlations between socioeconomic status and successful pregnancies, and between health care and successful pregnancies).

⁶⁰ See Joel Greenberg, *Unstable Emotions of Children Tied to Poor Diet*, N.Y. Times p. C1 (Aug. 18, 1981).

⁶¹ See American College of Obstetricians and Gynecologists, *Guidelines on Pregnancy and Work* 8 (NIOSH Publication No. 78-118) (1977) ("Pregnancy Guidelines").

⁶² There may be other negative effects if the excluded woman takes a traditionally female job. For example, one epidemiological study of heart disease reveals that women working as clerical workers are at greater risk of coronary heart disease than other women. The differential is higher for female clerical workers with children, and higher still for female clerical workers with children married to blue-collar men. See generally Suzanne G. Haynes, Elaine D. Eaker, and Manning Feinleib, *The Effect of Employment, Family, and Job Stress on Coronary Heart Disease Patterns in Women*, in Ellen B. Gold, ed., *The Changing Risk of Disease in Women* 37, 39 (1984).

The psychological effects (on the woman and her family) of excluding a woman from a higher-paying job may also be significant. Consider the testimony of Vicky Read, cited in note 58 above.

onomous interests and potential apart from those of their families. Women were seen only in terms of the reproductive and domestic functions associated with motherhood.⁶³ Similarly, in the contemporary debate, women are viewed solely in terms of reproductive functions.⁶⁴

In arguing for sex-specific fetal vulnerability policies, employers seem to concede that women may have interests in working despite fetal vulnerability: otherwise, there would be no need for exclusionary policies. But women's separate interests are effectively ignored. Employers' associations have asserted as uncontroversial that any independent interests women have should yield to the interest of the fetus or potential fetus.⁶⁵ When employers with this attitude exclude all fertile women from the workplace, it is as if they are stating that women's interests in employment are so weak that they are easily trumped by the interests of beings who may never exist.⁶⁶

By viewing women in terms of their group's reproductive function, proponents of fetal vulnerability policies fail to treat women as individuals. Policies that apply to all fertile women (with the presumption of fertility for all women 5 to 63 at Olin, for example⁶⁷) assume that the probability that any given fertile woman will become pregnant in the future is sufficiently high to justify excluding her from a job for which she is qualified. Yet the probability of having a child varies a great deal among individual women, depending on family situation, age, number of existing children, birth control method being used, attitudes toward abortion, and a host of other factors. Any of these factors, or a combination thereof, may make it extremely unlikely that a particular woman will have a child. For example, only one out of 5,000 women aged 45 to 49

⁶³ Feminist psychoanalytic theory explains that, because our early primary caretakers were mothers, we have difficulty perceiving mother and child (or potential child) as separate beings. We idealize mothers and are unable to disentangle the interests of mother and child. See Nancy Chodorow, *The Reproduction of Mothering* 81 (1978). Chodorow notes that "social commentators, legislators, and most clinicians expect women's interests to enhance their mothering and expect women to want only interests that do so." *Id.* at 82.

⁶⁴ Similar comparisons could be drawn between the abortion debate and the debates discussed in this article. For example, activists' positions on abortion tend to be related to their views on the role of women. For general discussion, see Kristin Luker, *Abortion and the Politics of Motherhood* (1984).

⁶⁵ See text at notes 40-48 above.

⁶⁶ The assertions in text at notes 46-48 above were offered by employers arguing for policies excluding all fertile women.

⁶⁷ Olin, 697 F.2d at 1182. At *American Cynamid*, the "fetal protection policy" excluded all women between 16 and 50 unless a woman "presented proof that she had been surgically sterilized." 741 F.2d at 446.

has a child in any given year.⁶⁸ For blue-collar women over 30, the birth rate may be less than 2 percent.⁶⁹ When fetal vulnerability policies nevertheless apply to all fertile women, the fact that a particular woman is unlikely to have children is ignored.

Except for a few chemicals that are retained in the body for extended periods of time (lead is the most common example),⁷⁰ employers concerned about fetal vulnerability could exclude only pregnant women. Experts agree that harm to the fetus (other than early spontaneous abortion) is not likely during the first three weeks of pregnancy.⁷¹ Blood tests are available that can reveal pregnancy in the first eight days.⁷² Rather than excluding all fertile women from jobs involving chemicals that are not retained,⁷³ em-

⁶⁸ U.S. Department of Commerce Bureau of the Census, Statistical Abstract of the United States 1986 at 57 (1985) (1983 rates). The birth rate drops to near zero at age 40. There is only a 0.38 percent probability that a woman employee between 40 and 44 will have a child in any given year. For a woman between 45 and 49, there is only a 0.02 percent chance of a birth during any given year. Although the Olin presumption of fertility lasts until 63, the census does not even record birth rates for women 50 and older.

⁶⁹ See Stellman and Henifin, No Fertile Women Need Apply at 138 (cited in note 1).

⁷⁰ See Olin Industry Brief at 5 (cited in note 49).

Both lead and mercury are retained in the body for a significant period after exposure. See, e.g., Leonard J. Goldwater, Antonio Nicolau, and S. Joao Da Madeira, Absorption and Excretion of Mercury in Man, 12 Arch. Environ. Health 196 (1966) (mercury nitrate); National Research Council Committee on Lead in the Human Environment 59 (1980) (lead). Almost all lead retained outside bones is, however, eliminated from the body within four to six weeks of exposure. See Lead in the Human Environment at 59-60. Lead stored in bones, especially lead-207 (a common form of lead), is relatively inactive biologically. National Research Council Committee on Biologic Effects of Atmospheric Pollutants 68 (1972).

Also, though children are very sensitive to lead, there is evidence of an effective placental barrier to its passage. Huel, Everson, and Menger, Increased Hair Cadmium in Newborns of Women Occupationally Exposed to Heavy Metals, 35 Environ. Res. 115, 119-120 (1984) (noting also, however, evidence of an association between maternal exposure to lead and premature birth).

⁷¹ See, e.g., Richard L. Naeye and Nebiat Tafari, Risk Factors in Pregnancy and Diseases of the Fetus and Newborn 7-8 (1983); Ian C.T. Nisbet and Nathan J. Karch, Chemical Hazards to Human Reproduction 16 (1983).

⁷² See Robert Landesman and Brij. B. Saxena, Results of the First 1000 Radioreceptorassays for the Determination of Human Chorionic Gonadotropin: A New, Rapid, Reliable, and Sensitive Pregnancy Test, 27 Fertility & Sterility 357 (1976) (noting that the test takes one hour and reveals pregnancy one week after conception); Pedro A. Poma, Early Detection of Pregnancy, 76 J. Nat'l Med. Assoc. 305, 309 (1984) (noting that the test is "easy, fast, . . . and economic").

This blood test is routinely used in many hospitals and clinics for early, accurate detection of pregnancy. See, e.g., Wampole Laboratories, In Routine Diagnosis of Pregnancy Bi-ocept-G (manufacturer's brochure on file with *The University of Chicago Law Review*); METPATH, Laboratory Update Human Chorionic Gonadotropin (clinic's internal memo announcing adoption of the test for routine testing effective April 21, 1986) (on file with *The University of Chicago Law Review*).

⁷³ Of the chemicals listed above in text at note 34, only lead and mercury are retained in the body for any significant period of time. See note 70 above.

ployers could give pregnancy tests on a regular basis. Policies excluding all fertile women to prevent exposure to rapidly eliminated substances unnecessarily treat fertile women as perpetually pregnant.

Employers have responded that pregnancy tests would be intrusive and would "raise[] invasion of privacy questions."⁷⁴ But current policies require a woman to choose between ever having another child and proving sterility to obtain a desired job. Offering a woman a third, additional choice—taking the desired job and undergoing routine pregnancy testing—would not be more intrusive on her reproductive freedom or a greater invasion of her privacy.⁷⁵ The point here is not that pregnancy testing is the ideal solution for rapidly eliminated substances or permissible under Title VII.⁷⁶ The point is only that employers have offered no satisfactory justification for treating all fertile women as perpetually pregnant when the issue is exposure to rapidly-eliminated chemicals.

The other listed chemicals are retained only briefly. It takes only four hours of breathing air for the body to eliminate half of the carbon monoxide previously inhaled. Robert E. Gosselin, Harold C. Hodge, Roger P. Smith, and Marion Gleason, *Clinical Toxicology of Commercial Products* 88 (1976).

Inhalation is the principal means of exposure to vinyl chloride. Animal studies indicate that within seventy-two hours of inhalation, most vinyl chloride has been eliminated. Environmental Protection Agency, *Ambient Water Quality Criteria for Vinyl Chloride*, EPA No. 44015-80-078 at C-8, C-15 (Oct. 1980).

Carbon tetrachloride remains in the blood for no more than forty-eight hours after inhalation and is no longer detectable in expired air after six days. EPA, *Ambient Water Quality Criteria for Carbon Tetrachloride*, EPA No. 44015-80-026 at C-23 (Oct. 1980).

Benzene exposure occurs primarily (perhaps exclusively) through inhalation. The time necessary to eliminate benzene is related to duration of exposure; however, the half-life of benzene retention in animal studies ranged from only 0.4 hours to 1.6 hours. EPA, *Ambient Water Quality Criteria for Benzene*, EPA No. 44015-80-018 at C-9, C-14 (Oct. 1980).

The body eliminates 6 to 10 percent of retained carbon disulfide in expired air three to eight hours after exposure ends. The body seems to excrete the remainder in urine as inorganic sulfates and organic sulfur compounds for twenty-four hours after exposure ends. Ralph P. McKee, Cemal Kiper, John H. Fountain, et al., *A Solvent Vapor, Carbon Disulfide*, 122 J. Amer. Med. Assoc. 217, 220, 222 (1943).

⁷⁴ *Olin Industry Brief* at 43 (cited in note 49) (also referring to "problems of administrative feasibility").

Curiously, some of the employers who have chosen to exclude all fertile women rather than administer pregnancy tests have adopted mandatory drug testing programs. For example, American Cyanamid and Olin test all applicants for drugs. Phone call with Dr. Utidjian of American Cyanamid (June 25, 1986); letter from Olin (on file with *The University of Chicago Law Review*). Delco-Remy screens all applicants and employees in vehicle testing (see letter on file with *The University of Chicago Law Review*).

⁷⁵ If pregnancy testing, as a third alternative, would be intrusive and too great an invasion of privacy, then offering women a choice only between proving sterility and a desired job should also be considered intrusive and too great an invasion of privacy.

⁷⁶ See, e.g., note 194 below.

3. *The evidence.* Like sex-specific protectionist legislation, sex-specific fetal vulnerability policies have been adopted without firm empirical evidence. Little is known about the risks associated with women's on-the-job exposure to ionizing radiation or hazardous chemicals at current exposure levels. As the Office of Technology Assessment recently reported:

What is known about reproductive health hazards is far outweighed by what is unknown: most commercial chemicals have not been thoroughly evaluated for their possible toxic effects on reproduction and development. Much of the information on suspected reproductive health hazards, as with other hazards, is derived from animal studies, which present problems of interpretation in extrapolating to effects in humans. There are consequently no reliable estimates as yet of the basic measures of reproductive risk in the workplace—the number of workers exposed to such hazards, their levels of exposure, and the toxicity of the agents to which they are exposed.⁷⁷

⁷⁷ Reproductive Health Hazards at 3 (cited in note 35). A 1983 study prepared in cooperation with the President's Council on Environmental Quality, the Environmental Protection Agency, The National Institute of Environmental Health Sciences, The National Institute for Occupational Safety and Health, and the Occupational Safety and Health Administration concludes:

The present state of scientific knowledge of chemical hazards to reproduction is somewhat similar to the state of knowledge of chemical carcinogens in the late 1960s. While a number of drugs and occupational exposures were known to be associated with excess cancer incidence, and many chemicals were known to be carcinogenic in experimental animals, the overall contribution of chemical agents to the cancer burden in the general population could not be assessed, the reliability of animal experiments for prediction of human risks was in dispute, and the development of dose-response models and risk assessment procedures had scarcely begun.

The regulatory situation was also similar: only a few chemical carcinogens (other than drugs) had been regulated by federal agencies, and very few of these regulatory actions had been taken on the basis of animal data alone. The subsequent development of procedures for protection depended on the progressive improvement of scientific knowledge. By analogy, it can be anticipated that the acquisition of more knowledge about the effects of chemical agents on reproduction will provide the basis both for estimates of the hazards they pose and for a regulatory program.

It is not clear that chemical hazards to reproduction will prove to be as large a public health issue as chemical carcinogens. However, if reproductive hazards are an important regulatory problem, they should be predicted with as much scientific knowledge as possible. The primary purpose of this report is to draw attention to the relevant scientific issues at an early stage in their development, so that research programs can be focused on these critical issues before they become public controversies.

Nisbet and Karch, *Chemical Hazards* at 114-15 (cited in note 71).

See also, e.g., Peter C. Holmberg and Kari Kurppa, *General Description and Some Preliminary Results of a Case-Referent Study on Selected Congenital Defects and Environmental Exposures*, in K. Hemminki, M. Sorsa, and H. Vainio, eds., *Occupational Hazards and*

Most of the evidence of reproductive health hazards is of little use. Much of it was compiled when women workers were exposed to higher levels of toxins⁷⁸ or when tragedies (such as the atomic bomb⁷⁹) resulted in higher exposure levels; and much of it is based on animal studies of uncertain applicability.⁸⁰ Epidemiological evidence—evidence from the study of outcomes based on incidence of diseases in human populations—is scant and, because of methodological problems, rarely conclusive.⁸¹

Like sex-specific protectionist legislation, fetal vulnerability policies have excluded women from jobs without firm evidence that the jobs present greater risks for women than for men. There is no sound scientific evidence that the risks associated with paternal exposure are lower than those associated with maternal exposure.⁸² Few studies have been done on the reproductive risks associated with male exposure.⁸³ The studies that have been done indicate that it is likely that agents dangerous to the fetus through maternal exposure are also dangerous through paternal exposure.⁸⁴ For

Reproduction 275 (1985) ("The evidence suggestive of exposures at work sites as contributors in teratogenesis [fetal malformation caused by exposure to chemical or physical agent] is circumstantial at best."); Joanna F. Haas and David Schottenfeld, *Risks to the Offspring from Parental Occupational Exposures*, 21 J. Occup. Med. 607, 607 (1979) ("Evidence for impaired pregnancies and hazards to the offspring of working populations with chemical exposures is, however, very limited."); Vilma R. Hunt, *Work and the Health of Women* 217 (1979) (for both paternal and maternal exposure, "[a]t present, it is difficult to assess risk for reproductive effect at all").

⁷⁸ For example, although lead is a well-documented fetal hazard at high exposure levels, there is little data available about its reproductive effects at current exposure levels. See, e.g., Maureen Hatch, *Mother, Father, Worker*, in Chavkin, ed., *Double Exposure* at 161, 171 (cited in note 1).

⁷⁹ See, e.g., National Council on Radiation Protection and Measurements, *Review of NCRP Radiation Dose Limit for Embryo and Fetus in Occupationally-Exposed Women* 13-16 (NCRP Report No. 53, Mar. 1, 1977) ("Radiation Dose Report").

⁸⁰ See, e.g., *Reproductive Health Hazards* at 3 (cited in note 35).

⁸¹ See *id.* at 8-9, 67-68.

⁸² See *Pregnancy Guidelines* at 3 (cited in note 61) (footnote omitted):

Little is known about the factors which cause birth defects, mutagenesis, or fetal carcinogenesis and how they may be related to occupational exposures. Many of these adverse effects are the result of the genetic effects of occupational exposures of men prior to conception. Most fetal damage, however, is not ascribable to any known cause.

See also *Reproductive Health Hazards* at 69-111 (cited in note 35) (comparing data for males and females for a wide variety of toxic chemicals); Scott, *Keeping Women in Their Place* at 183-84 (cited in note 1).

⁸³ See, e.g., Nisbet and Karch, *Chemical Hazards* at 14 (cited in note 71); Hunt, *Work and the Health of Women* at 155 (cited in note 77); Haas and Schottenfeld, 21 J. Occup. Med. at 607 (cited in note 77).

⁸⁴ The Nisbet and Karch study concludes:

The scientific basis for differential regulation is limited. Reproduction involves a wider range of processes in females than in males, and some processes in females involve

example, some toxic agents, such as heavy metals, pesticides, and solvents "have been shown to cause infertility in males as well as adverse pregnancy outcomes resulting from mutations in male germ cells."⁸⁵ Paternal exposure to toxic agents can cause harm because of abnormalities in the fertilizing sperm, or because of the transmission of dangerous agents in intercourse during pregnancy (for example, lead has been found in semen of male workers), or because male workers bring contaminants home on their clothes, hair, skin, etc.⁸⁶ The precise relative risks are unknown.⁸⁷ Often, a fertile male will pose a greater risk to fetal safety than a fertile, nonpregnant female. Spermatogenesis is an ongoing process, whereas the female's ova all are produced by early infancy, and rapidly dividing cells are more susceptible to a number of injuries.⁸⁸ Also, some substances, such as lead, "'concentrate in the male reproductive tract [and] are quite toxic to sperm.'"⁸⁹

4. *Potential offspring are protected only when women are perceived as marginal workers.* During the protectionist era, women were excluded from jobs only when they were not key workers. Similarly, women and their children are "protected" by fetal vulnerability policies only when women are perceived as marginal members of the work force. Fetal vulnerability policies excluding all fertile women have been adopted only in male-domi-

critical periods of differentiation and development. However, it does not necessarily follow that women are more sensitive to the action of any given agent. Where extensive data have been compiled on both sexes (e.g., for anesthetic gases and smelter emissions), evidence has been found for adverse effects resulting from exposure of both men and women, including some evidence for adverse fetal effects following exposure of males. More evidence is required to establish whether males and females differ in sensitivity. Such evidence should include not only the occurrence of effects in each sex, but also the nature of the effects and the doses at which they occur.

Nisbet and Karch, *Chemical Hazards* at 114 (cited in note 71).

See also *Reproductive Health Hazards* at 69-111 (cited in note 35); Scott, *Keeping Women in Their Place* at 183-84 (cited in note 1); Haas and Schottenfeld, *Risks to Offspring* at 607 (cited in note 77).

⁸⁵ Nisbet and Karch, *Chemical Hazards* at 14 (cited in note 71), citing J.M. Manson, *Human and Laboratory Test Systems Available for Detection of Reproductive Failure*, 7 *Prev. Med.* 322-31 (1978). See also Jane E. Brody, *Sperm Found Especially Vulnerable to Environment*, N.Y. Times p. C1 (Mar. 10, 1981).

⁸⁶ See Naeye and Tafari, *Risk Factors* at 7 (cited in note 71); Seminario, *AFL-CIO American Federationist* at 20 (cited in note 34); Nisbet and Karch, *Chemical Hazards* at 14-15 (cited in note 71).

⁸⁷ See authorities cited in notes 82-85 above.

⁸⁸ Barry S. Levy and David H. Wegman, eds., *Occupational Health* 308 (1983).

⁸⁹ Brody, N.Y. Times at C1 (Mar. 10, 1981) (cited in note 85) (quoting Dr. John MacLeod). Sperm may be damaged (as well as killed) by toxic agents; damaged sperm may result in deformed children. See authorities cited in note 85 above.

nated industries.⁹⁰ Despite similar risks, such policies have not been adopted in industries in which a substantial number of workers are women.⁹¹

The electronics industry, for example, employs mostly women,⁹² and many of these women frequently come into contact with six of the seven substances listed above:⁹³ lead, benzene, vinyl chloride, carbon tetrachloride, carbon monoxide, and carbon disulfide. Yet fetal vulnerability policies have not been instituted in this industry.⁹⁴ Many women laundry workers and dry cleaners are exposed to carbon disulfide and benzene.⁹⁵ Women laboratory technicians are often exposed to benzene and other dangerous chemicals.⁹⁶ Infectious agents and chemicals create risks of fetal harm to health care workers and hospital laundry workers.⁹⁷ Dental offices are often contaminated by mercury.⁹⁸ Pottery painting, a traditionally female job, involves exposure to lead.⁹⁹ Yet with the exception of hospitals that fire pregnant x-ray technicians or otherwise re-

⁹⁰ See, e.g., Hunt, *Work and the Health of Women* at 97-98 (cited in note 77); Robert Howard, *Brave New Workplace* 141, 165 (1985); Robin Baker and Sharon Woodrow, *The Clean, Light Image of the Electronics Industry: Miracle or Mirage?*, in Chavkin, ed., *Double Exposure* 21-22 (cited in note 1).

⁹¹ See, e.g., sources cited in note 1.

⁹² Baker and Woodrow, *The Clean, Light Image*, in Chavkin, ed., *Double Exposure* at 21-22 (cited in note 90).

⁹³ See text at note 34.

⁹⁴ See Baker and Woodrow, *The Clean, Light Image*, in Chavkin, ed., *Double Exposure* at 21-23 (cited in note 90); Cynthia E. Talbot, *Toxic Substances Commonly Found in Electronics: A Guide for Health Professionals*, Project on Health and Safety in Electronics, Santa Clara Center for Occupational Safety & Health (1981); Santa Clara Center for Occupational Safety & Health, *Unmasking the Hazards, A Workers' Guide to Job Hazards in the Electronics Industry* (1981).

In contrast, sex-specific fetal vulnerability policies have become common in the traditionally male petrochemical industry. The newer electronics industry is a "close cousin" to the petrochemical industry in terms of health and safety risks as a result of chemical exposure, though the older petrochemical industry is more concerned about safety than the young and highly competitive microelectronics industry. Howard, *Brave New Workplace* at 141, 165 (cited in note 90).

⁹⁵ See, e.g., Nancy Miller Chenier, *Reproductive Hazards at Work* 45 (1982). A "quarter of a million women work in laundries and dry cleaning establishments." Seminario, *AFL-CIO American Federationist* at 19 (cited in note 34).

⁹⁶ See Seminario, *AFL-CIO American Federationist* at 19.

⁹⁷ See, e.g., Chenier, *Reproductive Hazards* at 28-32 (cited in note 95); Linda Coleman and Cindy Dickinson, *The Risks of Healing: The Hazards of the Nursing Profession*, in Chavkin, ed., *Double Exposure* at 37, 44-50 (cited in note 1) (describing fetal hazards of nursing). These risks are not unique to maternal exposure. The children of men working in these occupations may also be at risk. Chenier, *Reproductive Hazards* at 28 (cited in note 95).

⁹⁸ James C. Hyatt, *Protection for Unborn? Work-Safety Issue Isn't as Simple as it Sounds*, *Wall St. J.*, p. 1, col. 1, p. 31, col. 3 (Aug. 2, 1977).

⁹⁹ Stellman and Henifin, *No Fertile Women Need Apply* at 120 (cited in note 1).

strict their exposure, women are generally allowed to work in women's jobs without restrictions based on fetal safety.

This should not be surprising. An employer faced with evidence that a group is hypersusceptible (even if the heightened risk is very low) is likely to make the decision to exclude that group based, not on the costs and benefits to the workers and their families, but on the employer's need for members of that group in its labor force. If the group is very marginal—as women are in traditionally male jobs¹⁰⁰—the employer has every incentive to exclude the group's members even though the heightened risks may be very low (or only vague worries¹⁰¹) and the benefits of allowing the

¹⁰⁰ At American Cyanamid, the corporate medical director developed a fetal vulnerability policy, excluding women from certain production jobs, when women began bidding on these jobs because he was "concerned that this change in employment patterns might pose a risk to the embryos and fetuses of employees." *Reproductive Health Hazards* at 252 (cited in note 35). Initially, the policy *only* applied to female production workers, not research or laboratory jobs traditionally held by women. *Id.* at 253. Eventually, the policy was expanded to cover these workers, but "the policy was never in fact enforced for laboratory workers." *Id.* at 256.

At Olin Corporation "until approximately 1975, Olin expressly required that craft maintenance positions be filled by males only." Brief for Appellants EEOC and Wright on Appeal in *Wright v. Olin Corp.* at 16 ("Olin Plaintiff's Brief"). Although other positions were not formally limited to only one sex, an Olin employment supervisor testified that certain jobs were "definitely" women's jobs and others "strictly men's jobs." *Id.* at 9. Women moved into men's jobs in nontrivial numbers only after pressure from the General Services Administration about Olin's failure to comply with requirements for government contractors. *Id.* at 5-26. Thereafter, Olin developed a fetal vulnerability policy excluding fertile women from traditionally male jobs.

¹⁰¹ Robert M. Clyne, Corporate Medical Director of American Cyanamid Co., described the evidence supporting American Cyanamid's and Olin's sex-specific fetal vulnerability policies as follows:

Threshold limit values for fertile females . . . were arrived at solely by professional judgment and 'educated guessing' and certainly are not based on any clinico-laboratory experience. We admit that we are ultraconservative. . . . Others have been somewhat less restrictive about threshold limit values for fertile females such as Dr. O'Connell of Olin who has stated that they use half the present threshold limit value for adults. . . . Neither of us has any good documentation for adopting the levels we have.

This same medical director

was unwilling to exclude fertile men in the absence of "epidemiological studies indicating that the compound was indeed a human mutagen." He would not be persuaded by animal studies showing evidence of a chemical's mutagenic effect on sperm and claims that "the only meaningful information that [he] would accept is epidemiological information."

Reproductive Health Hazards at 255 (cited in note 35).

The Office of Technology Assessment reports that this medical director excluded fertile women (ages 16 to 55) from exposure to twenty-nine chemicals without any specific information about fetal risk associated with maternal exposure for twenty-eight of the twenty-nine. *Id.* at 253. Acrylamide was on the list, though the director knew that NIOSH had concluded that no fetal risk was known to be associated with the chemical. *Id.* at 255. Because of labor problems, American Cyanamid subsequently conducted a study (the only

group to work (benefits in this case to both women and their children) are very high.

Women are "marginal" potential workers for traditionally male blue-collar jobs in the sense that women are likely to be less attractive as employees than men are. Employing women in these jobs entails added costs in providing washrooms and, for many jobs involving exposure to hazardous chemicals, showers for washing off chemicals at the end of the work day. Protective equipment, clothing, and tools designed for women rather than men may be necessary.

Often, men in traditionally male jobs are hostile to women as co-workers. Admitting women is therefore likely to be disruptive, and employers understandably dislike disruptions and disputes among employees. In such an environment, a new female employee is likely to be less productive than a new male employee because, for example, on-the-job training is likely to be more difficult for the new woman worker to acquire.¹⁰²

Policies excluding all fertile women have arisen mostly, perhaps entirely, in unionized industries with rigid pay scales.¹⁰³ Employers in these industries cannot offset the high costs of employing women by paying women lower wages, because such a differential would be an obvious violation of the Equal Pay Act.¹⁰⁴ In addition, unionized employers are likely to pay higher than the average wages and therefore are able to hire as many workers as they desire without employing women.

For all these reasons, employers with traditionally male blue-collar work forces are likely to have no financial reason for employing women; all financial considerations are likely to argue for exclusion. And, of course, if the concern (or vague worry) about

study conducted by the company) of acrylamide and removed it from the list because there was no reason to believe that it was a fetal hazard. *Id.* at 255.

¹⁰² See generally Mary Lindenstein Walshok, *Blue Collar Women* (1981).

¹⁰³ The companies known to have policies excluding all fertile women include: Olin, American Cyanamid, Union Carbide, General Motors, Bunker Hill, Allied Chemical, B.F. Goodrich, Monsanto, St. Joe's Minerals, ASARCO, Sun Oil, Gulf Oil, and Delco-Remy. For evidence that production workers tend to be unionized in these companies, see, e.g., *American Cyanamid Co. v. NLRB*, 592 F.2d 356 (7th Cir. 1979); *NLRB v. Union Carbide Corp.*, 440 F.2d 54 (4th Cir. 1971); *NLRB v. General Motors Corp.*, 373 U.S. 734 (1963); *The Bunker Hill Co. v. Local 7854*, 210 NLRB 343 (1974); *Allied Chemical Corp. v. District 50*, 151 NLRB 718 (1965); *B.F. Goodrich Co. v. Local 281*, 115 NLRB 722 (1956); *Monsanto Chemical Co. v. Local 16*, 130 NLRB 1097 (1961); *McGhee, The Progressive* (Oct. 1977) at 20-21 (cited in note 58) (St. Joe's plant with a policy excluding all fertile women from jobs involving lead exposure was unionized); *Federated Metals Corp. v. Local 365*, 648 F.2d 856 (3d Cir. 1981) (Federated Metals is a wholly owned subsidiary of ASARCO).

¹⁰⁴ 29 U.S.C. § 206(d)(1) (1982).

hypersusceptibility turns out to be well-founded, exclusion has the potential of saving money.

Similar factors are particularly likely to be present when pregnant women are fired or their employment restricted. Even for jobs held predominantly by women, employers are likely to perceive pregnant workers as unneeded or unwanted relative to non-pregnant workers. For a number of reasons, only a few of which are mentioned here, a pregnant woman is likely to be regarded as less reliable. She may have to be replaced, at least temporarily, at the time of delivery, and she may decide not to return to work, or to return only after taking several months off. For employers who self-insure medical coverage for their employees, or those whose future insurance premiums depend on current payouts, the pregnant worker is a very costly employee, and no short-term benefits to the employer are associated with the higher costs. Many employers would prefer to replace the pregnant worker immediately and permanently than to continue to employ her. Thus, pregnant workers are marginal workers even in women's jobs.

5. *Women as decision makers.* As in the earlier debate over protectionist legislation, proponents of fetal vulnerability policies have not discussed whether women might be trusted to decide for themselves what is in the interest of themselves and their current and potential families. Yet as between the woman and the employer, the woman is likely to be the better decision maker.

In adopting fetal vulnerability policies, employers err systematically in favor of fetal safety. Employers assume that the probability that any fertile woman will become pregnant while employed at the hazardous job or while her body still retains hazardous chemicals is high enough to warrant her exclusion. Employers have no financial incentive to consider the advantages of employment to a woman, to her living dependents, to her unborn and unconceived children, and to society.

Unlike the employer, the individual woman can take into account the advantages and disadvantages of a particular job for herself and her dependents, including her future children, in light of the probability that she will have another child while fetal health is at risk from occupational exposure.¹⁰⁵ In addition, the woman can control the timing of pregnancy to protect fetal health.¹⁰⁶

¹⁰⁵ Under existing regulations, employers are required to give employees information about health hazards. See, e.g., 29 C.F.R. §§ 1910.96(i), 1910.1017(j), 1910.1025(l) (1985) (disclosure requirements for ionizing radiation, vinyl chloride, and lead, respectively).

¹⁰⁶ At Olin, for example, twenty-six women worked for two years in "controlled" jobs.

It might be argued that, in balancing the advantages and disadvantages of hazardous employment, women will give too little weight to potential injuries to potential children. It is true that women will err more on the side of fetal risk than will employers who adopt fetal vulnerability policies; these employers err only on the side of fetal safety. But unless risks to potential people, who may never exist, are to be valued above all other interests, including the actual needs of living women and living children, women are better decision makers than employers who would exclude all fertile women.

Pregnant women are likely to be particularly concerned with fetal health, and quite interested in protecting it. If a pregnant woman, informed of the risks of occupational exposure, nevertheless continues in the job, it is quite likely that the alternatives to hazardous employment are worse for her unborn child and her other dependents than are the risks of employment.

There are other reasons why women, and not employers, should make these decisions. Even if a particular individual woman reaches the same decision the employer would have reached, the woman who makes the decision herself will feel that she, rather than others, is in control of her life. A woman's interest in autonomy is an important reason for allowing her to make decisions about smoking and drinking before and during pregnancy.¹⁰⁷ There is much more evidence that cigarettes and alcohol cause serious injuries to the developing fetus than that workplace toxins do so.¹⁰⁸ The risks associated with decisions to smoke or drink during pregnancy seem less likely to benefit living and potential children than the risks associated with employment.

Finally, if individual employers can decide whether to exclude women on the basis of fetal vulnerability, women and their poten-

See note 40. None of these women, however, became pregnant during those two years. See *Olin ACLU Brief* at 5 (cited in note 40). Because these controlled jobs involve *some* exposure to suspected reproductive hazards, other employers with more restrictive policies might have excluded all of these women from the jobs because each could have become pregnant at any moment.

Although little is known about risks of fetal damage due to parental occupational exposure, a fair amount is known about how long chemicals are retained in the body. See, e.g., notes 70 and 73 above.

¹⁰⁷ Women's interest in autonomy is also part of the basis for their constitutional right to abortions under *Roe v. Wade*, 410 U.S. 113, 153, 162 (1973). However, this constitutional right is of limited relevance to women's right to work despite fetal vulnerability. Hazardous employment might lead to a living, deformed child. The constitutional right to an abortion does not include the right to risk the health of a fetus that can survive on its own. See *id.* at 163-64.

¹⁰⁸ See, e.g., Haas and Schottenfeld, 21 *J. Occup. Med.* at 607 (cited in note 77).

tial children will not be excluded whenever a certain level of fetal risk exists. Instead, they will be excluded only when employers choose to adopt exclusionary policies. This means that women and their potential children will be excluded—as in the era of sex-specific protectionist legislation—only when women are perceived as marginal workers. But jobs for which women are marginal workers are likely to offer higher pay and better benefits than the women otherwise would be able to receive. Thus, employers are likely to adopt fetal vulnerability policies excluding fertile or pregnant women only when the dangerous job offers a real advantage to the women and their living and potential children.

C. Employers' Desire to Avoid Harm

Employers today make an additional argument, one not advanced during the debate over protectionist legislation: that the prospect of the employer's causing fetal harm is a legitimate basis for excluding women, both on moral grounds and in light of the employer's potential tort liability.¹⁰⁹ Closer analysis reveals, however, that this argument also rests on troubling assumptions that were made during the earlier debate.

The moral strand of this argument is that employers should not be forced to be the cause of harm to the next generation. Life is, however, more complicated. Firing a pregnant woman, or refusing to give a higher-paying traditionally male job to a fertile woman, may cause more harm to the next generation (including living members of that generation) than would dangerous employment. The employer may feel more responsible for fetal harm if the woman is employed than for consequences to the woman and her dependents if she is not employed, because the latter harms are invisible to the employer. But these consequences are no less real. The moral argument, like the arguments criticized earlier, ignores the actual alternatives facing the excluded woman and her dependents and assumes that her reproductive role is more important to the welfare of her offspring than her economic role.

The other strand of this argument, focusing on tort liability, asserts that employers should not be put to the choice of violating

¹⁰⁹ In the earlier debate, proponents did argue that sex-specific legislation was appropriate for moral reasons, for example, protecting the health of the next generation and the morals of its mothers. See section I-A above. But (perhaps because the policies were enacted by the state and in the absence of any bans on sex discrimination), proponents did not argue that exclusion was justified because otherwise employers would be the cause of harm to the next generation.

Title VII or being held liable in tort if a child is born deformed as a result of maternal exposure at work. Employers stress that they have no way to protect themselves from tort liability, because a woman cannot waive the rights of her unborn or unconceived children. Thus, they urge, Title VII should be interpreted to permit sex-specific fetal vulnerability policies.

Ineffectiveness of maternal waiver is not, however, the problem. It is impossible to state with certainty the standard for employer liability in tort for injuries to workers' children. Because of workers' compensation, the cases most closely analogous—involving injuries to workers themselves—have not been brought in tort for many years. Under general tort principles, however, there would seem to be no basis for holding an employer liable for fetal harm if Title VII bans sex-specific fetal vulnerability policies,¹¹⁰ the employer fully informs the woman of the risks, and the employer has not acted in a negligent manner.¹¹¹ Indeed, without negligence, it would be difficult to find causation by the employer.¹¹² The employer has done only what it was legally obligated to do under Title VII, i.e., afford equal employment opportunity to fertile and pregnant women.¹¹³ Waiver of negligence by the worker herself would be ineffective in most jurisdictions,¹¹⁴ so the ineffectiveness of maternal waiver is irrelevant. The critical difference between the worker's action, and the negligence action brought by the child, is that the worker's claim must be brought under a workers' compensation system, whereas the child could sue in tort.¹¹⁵

¹¹⁰ The argument that Title VII must permit these policies because otherwise employers will be liable in tort overlooks the fact that Title VII's nondiscrimination mandate will affect the scope of employer liability in tort.

¹¹¹ See Lucinda M. Finley, *The Exclusion of Fertile Women from the Hazardous Workplace*, in *Proceedings of NYU Thirty-Eighth Annual National Conference on Labor 16-1*, 16-35 to 16-40 (1985) ("Labor Conference Proceedings") (concluding that tort liability is unlikely in the absence of negligence, and noting that when prenatal torts have been actionable, the basis of liability has been negligence towards the mother).

¹¹² In addition, it is only claims based on *negligence* that parents can never waive. Parents can waive compensation rights arising from intentional torts (e.g., medical treatment). See *Doyle v. Bowdoin College*, 403 A.2d 1206 (Me. 1979); *Kaufman v. American Youth Hostels*, 174 N.Y.S.2d 580, 589 (Sup. Ct. 1957); W. Page Keeton, Dan B. Dobbs, Robert E. Keeton, and David G. Owen, *Prosser and Keeton on Torts* § 18 at 115 (5th ed. 1984) ("Prosser & Keeton").

¹¹³ The mother might be liable in tort to the child for injuries sustained because the mother took unreasonable risks.

¹¹⁴ Prosser & Keeton § 68 at 482 n.22 (cited in note 112).

¹¹⁵ An employer might also be liable in tort if the child brought a products liability claim against a third party (e.g., the manufacturer of the hazardous chemical or the negligent repairer of a safety device) and the third party counterclaimed against the employer for either contribution or indemnity. Unless the employer has expressly promised to indemnify

Tort liability, though a potential loss associated with the employment of women in some situations, must be seen in perspective. Even if the child could prove negligence on the part of the employer, physical causation would have to be established. Although physical causation can be shown for many toxic torts, the lack of firm evidence linking maternal occupational exposure to fetal injury (discussed above¹¹⁶) would make physical causation for fetal torts difficult to prove. As additional evidence, consider the dearth of cases alleging such injuries as a result of maternal exposure, despite the fact that women have been exposed to hazardous agents in women's jobs. Some of the Agent Orange litigation, involving paternal exposure to dioxin allegedly causing birth defects, was dismissed for failure to prove causation.¹¹⁷ Further, as the Agent Orange example itself suggests, potential tort liability for fetal injury is not unique to women workers. All of the scientific evidence indicates that those agents that are reproductive hazards for fertile or pregnant women are also hazards for fertile men or men whose wives are pregnant.¹¹⁸ Although no participant in the current debate has been able to point to a single instance of a child allegedly damaged as a result of maternal occupational exposure,¹¹⁹ fetal injury due to *paternal* occupational exposure has been alleged in a number of instances in addition to the Agent Orange litigation.¹²⁰

the third party against such liability, however, the employer would be indirectly liable for the child's injury only if the employer was negligent. See Arthur Larson, 2A *The Law of Workmen's Compensation* § 76 at 14-561 to 14-765 (1983).

¹¹⁶ See notes 77-81 and accompanying text above.

¹¹⁷ See Finley, *Exclusion of Fertile Women*, in *Labor Conference Proceedings* at 16-38 n.8 (cited in note 111).

¹¹⁸ See notes 82-89 and accompanying text above.

¹¹⁹ See, e.g., Joan E. Bertin, *Workplace Bias Takes the Form of 'Fetal Protectionism'*, *Legal Times* 18, 20 n.3 (Aug. 1, 1983).

¹²⁰ Male railroad workers in New York have filed claims against the Long Island Railroad alleging that their children were born with hip deformities and other birth defects as a result of paternal exposure to certain defoliant chemicals. Scott, *Keeping Women in Their Place* at 190-91 (cited in note 1). A male employee of Occidental Chemical Company has "charged that his occupational exposure to DBCP caused deformities to his child." See 9 *Occup. Safety & Health Rptr. (BNA)* 339 (Current Report, Sept. 13, 1979) (suit alleging that employer had acted intentionally and willfully in disregarding knowledge that DBCP was in the drinking water of the plant). During 1974-76, five male workers (out of sixty one) at a plant producing a weed killer, oryzalin, had children born with serious heart defects. One died at birth, and only one survived extensive surgery to correct the defects. See Scott, *Keeping Women in Their Place* at 184 (cited in note 1). The International Chemical Workers Union has asked that the herbicide be banned, alleging that it caused these birth defects. See Phillip Shabecoff, *Union, Citing Birth Defects, Asks Ban on a Herbicide*, *N.Y. Times* p. 16, col. 1 (Nov. 9, 1979). See also *Mondelli v. United States*, 711 F.2d 567 (3d Cir. 1983) (alleging that paternal exposure to ionizing radiation during atomic testing caused

Employers fear "open-ended" tort liability for malformed children and worry that the risk of such liability may be greater with maternal employment than with paternal employment. Their fears are not entirely assuaged by the absence to date of any allegations of maternal occupational exposure causing fetal harm.¹²¹ Employers may be right. Perhaps when more is known, the risks associated with maternal exposure will tend to be higher than the risks associated with paternal exposure. But even then, the problem of potential tort liability should not be solved simply by excluding women.¹²² A fairer solution would be to modify workers' compensation systems. Workers' compensation systems could be extended to cover all fetal injuries associated with parental occupational exposure and to bar any tort action against the employer for losses associated with such injuries.¹²³ Statutory schedules, which specify damage amounts for certain injuries, could be expanded to include

birth defects); *Hinkie v. United States*, 715 F.2d 96 (3d Cir. 1983) (same).

¹²¹ These fears do not seem to be entirely a pretext for keeping women out of traditionally male jobs. Dow does not have any such policies. It has established safe exposure levels for all chemicals in terms of fetal toxicity and is able to keep exposure below those levels for all employees. In addition, Dow representatives have indicated that Dow would be very reluctant to use any chemical for which there was no "safe exposure level for fetal toxicity." Rebecca L. Rawls, *Reproductive Hazards in the Workplace*, 58 *Chem. & Engin. News* 35, 37 (Feb. 18, 1980). Thus, Dow seems strongly committed to equal employment opportunities for women. Yet Dow Medical Director Benjamin B. Holder has stated that if exposure ever rose too high at any one plant, "we would temporarily transfer the women out and get the level lower." *Id.*

¹²² If employers are allowed to exclude fertile nonpregnant women because of potential tort liability associated with potential damage to potential fetuses (on the ground that a woman cannot waive the rights of a nonexistent fetus), it will be the only instance in the legal universe in which a being that does not yet exist bars absolutely an option that might be in its own interest as well as in the interest of the living. When the question involves property, rather than the potential mother's right to work, procedures are available to allow the living to choose the best option, taking into account the interests of potential beneficiaries; the nonexistent do not wholly restrict the options of the living. See, e.g., Ill. Rev. Stat. ch. 110, § 2-501 (1985) (providing for appointment of a guardian ad litem to represent and to bind "persons not in being" who have an interest in real or personal property).

¹²³ Third-party actions against employers for contribution or indemnity are a possible source of employer liability in addition to direct actions brought by the injured child. See note 115 above. However, the extension of workers' compensation statutes to fetal injuries associated with parental occupational exposure would bar most third-party actions associated with fetal injury in most jurisdictions. See Larson, 2A *Workmen's Compensation* § 76 at 14-561 to 14-765 (cited in note 115). Third-party suits against negligent employers would remain possible in some instances, especially in some jurisdictions. *Id.* Workers' compensation statutes could also, however, be modified to bar all such actions. Richard Epstein has proposed that workers' compensation systems be modified to bar third-party indemnity actions against employers, and to give third parties an automatic right (regardless of the employer's negligence) to deduct from their liability to the employee the employee's recovery under the workers' compensation system. Richard A. Epstein, *Coordination of Workers' Compensation Benefits with Tort Damage Awards*, 13 *Forum* 464 (1978).

fetal injuries.¹²⁴ Employers could be required to pay the specified amount for any fetal injury arising out of workplace parental exposure, including medical expenses as well as costs associated with special education.

There is a more fundamental problem with construing Title VII to permit sex-specific fetal vulnerability policies because of potential tort liability associated with the employment of women. If the costs of injury to potential third parties (potential children of female employees) should not be borne by employers, why should the costs of avoiding injury to these potential third parties be borne by women and their living dependents? The tort-based argument ignores the fact that women and potential offspring are independent beings with interests that are not necessarily identical. Once women and potential children are seen as distinct, the argument based on tort liability cannot resolve the question: Given Title VII's ban on sex discrimination, why should women and their living dependents, any more than employers, bear the costs of safety for potential third parties?

In any event, to the extent that the risks of fetal injury associated with maternal exposure are greater than those associated with paternal exposure, potential tort liability is an added cost of employing women. The appropriate question is whether Title VII allows discrimination on the basis of such costs.

II. TITLE VII AND FETAL VULNERABILITY POLICIES

Title VII bans discrimination on the basis of sex unless sex is a bona fide occupational qualification (BFOQ) for the job in question.¹²⁵ As amended by the Pregnancy Discrimination Act of 1978, discrimination on the basis of sex is defined as including discrimination "on the basis of pregnancy, childbirth, or related medical conditions."¹²⁶ In determining the legality of sex-specific fetal vulnerability policies, two issues must therefore be addressed: whether the plans discriminate on the basis of sex, pregnancy, or related medical conditions and, if they do, whether such policies are nevertheless permissible under the statutory BFOQ defense.

¹²⁴ For a description of damages for scheduled injuries under various workers' compensation systems, see United States Chamber of Commerce, *Analysis of Workers' Compensation Laws* 1985, 20 (1985).

¹²⁵ 42 U.S.C. § 2000e (1982). The BFOQ defense is codified at 42 U.S.C. § 2000e-2(e).

¹²⁶ 42 U.S.C. § 2000e(k) (1982).

A. Discrimination on the Basis of Sex, Pregnancy, or Related Medical Conditions

Under the Supreme Court's interpretation of Title VII in *General Electric Co. v. Gilbert*,¹²⁷ reasonable fetal vulnerability policies would be permissible. In *Gilbert*, the Court held that an employer's decision not to afford medical protection for pregnancy-related disabilities was not sex discrimination, since it was based on an underlying factor independent of sex: the cost of coverage. Congress disagreed and overturned *Gilbert* with the Pregnancy Discrimination Act of 1978 (PDA). The PDA defines sex discrimination to include distinctions based on pregnancy, childbirth, or related medical conditions.¹²⁸

In two important post-PDA cases, the Supreme Court has held^o that any distinction between men and women, no matter how reasonable, is *per se* discrimination on the basis of sex, and therefore a violation of Title VII unless justified by the BFOQ defense. In *Arizona Governing Committee v. Norris*¹²⁹ and *City of Los Angeles v. Manhart*,¹³⁰ the Court held that employers could not distinguish between men and women for pension purposes, though the distinctions were based on a real difference between men and women: women, on the average, live longer than men.

Given the PDA, *Norris*, and *Manhart*, policies excluding pregnant or fertile women from jobs discriminate on the basis of sex, pregnancy, or related medical conditions and are impermissible unless the BFOQ defense applies. Policies distinguishing between pregnant persons and others discriminate on the basis of pregnancy, which is prohibited by the PDA.¹³¹ Similarly, policies excluding fertile women discriminate on the basis of sex because they distinguish between fertile women and fertile men. Such policies also discriminate on the basis of a medical condition related to pregnancy because they distinguish between potentially pregnant

¹²⁷ 429 U.S. 125 (1976).

¹²⁸ 42 U.S.C. § 2000e(k). According to the reports of both houses on the PDA, Congress considered the approach in *Gilbert* inconsistent with a proper understanding of Title VII's nondiscrimination mandate. See Amending Title VII, Civil Rights Act of 1964, Sen. Rep. No. 95-331, 95th Cong., 1st Sess. 2-3 (1977) ("PDA Senate Report"); Prohibition of Sex Discrimination Based on Pregnancy, H.R. Rep. No. 95-948, 95th Cong., 2d Sess. 2-3 (1978) ("PDA House Report"). Like the policy at issue in *Gilbert*, fetal vulnerability policies distinguish between pregnant (or potentially pregnant) persons and other persons on the basis of the potentially costly risks associated with pregnancy.

¹²⁹ 463 U.S. 1073 (1983).

¹³⁰ 435 U.S. 702 (1978).

¹³¹ As the House Report put it, under the amended statute "distinctions based on pregnancy are *per se* violations of Title VII." PDA House Report at 3 (cited in note 128).

persons and others.¹³² Further, *Norris* and *Manhart* indicate that distinctions banned by Title VII are impermissible no matter how rational, unless justified by the statutory BFOQ defense.¹³³ Thus, any sex-specific fetal vulnerability policy is facially discriminatory, no matter how rational and irrespective of the employer's intent. The only issue is whether the policy can be justified under the BFOQ defense.¹³⁴

Neither of the two courts of appeals to consider the legality of fetal vulnerability policies has adopted this analysis. Although neither court upheld the sex-specific fetal vulnerability policy at issue, both indicated that employers could restrict the employment opportunities of women when such restrictions were "reasonably required to protect the health of unborn children of women workers against hazards of the workplace."¹³⁵ Specifically, they held that an employer could restrict the employment of pregnant or fertile women if the employer could show through "independent objective evidence" that there were significant risks associated with the exposure of the excluded women, risks not shared by male

¹³² Reports of both houses indicate that this phrase—"related medical conditions"—was meant to encompass all physiological conditions related to childbearing and unique to women. See, e.g., PDA Senate Report at 3-4 (cited in note 128) ("the bill defines sex discrimination . . . to include these physiological occurrences peculiar to women"); PDA House Report at 5 (cited in note 128) ("In using the broad phrase 'women affected by pregnancy, childbirth and related medical conditions,' the bill makes clear that its protection extends to the whole range of matters concerning the childbearing process.").

¹³³ See *Norris*, 463 U.S. at 1084 n.14; *Manhart*, 435 U.S. at 716-17 (Title VII does not contain "a cost-justification defense comparable to the affirmative defense available in a price discrimination suit . . . neither Congress nor the courts have recognized such a defense under Title VII") (footnotes omitted). In addition to *Norris* and *Manhart*, consider *Phillips v. Martin Marietta Corp.*, 400 U.S. 542 (1971) (hiring fathers of preschool children while refusing to hire mothers of preschool children is discrimination on the basis of sex); *Michael J. Zimmer and Charles A. Sullivan, The Structure of Title VII Individual Disparate Treatment Litigation: Anderson v. City of Bessemer City, Inferences of Discrimination, and Burdens of Proof*, 9 *Harv. Women's L. J.* 25, 31-32 (1986) (noting that individual disparate treatment cases require a showing of intent to discriminate, which is satisfied by, among other things, showing a conscious intent to treat differently the two races or the two genders; the employer's *motive* for making the distinction is irrelevant).

¹³⁴ If a differential standard *increases* job opportunities for minority group members, the employer might also be able to argue that the differential standard is a permissible part of an affirmative action plan. See *Steelworkers v. Weber*, 443 U.S. 193 (1979). However, this defense would not be available in the context of fetal vulnerability policies *limiting* the employment opportunities of fertile or pregnant women.

¹³⁵ *Wright v. Olin Corp.*, 697 F.2d 1172, 1189-90 (4th Cir. 1982). In *Hayes v. Shelby Memorial Hospital*, 726 F.2d 1543, 1548 n.8 (11th Cir. 1984), the court indicated that it was adopting the same substantive standard adopted by the Fourth Circuit in *Olin*. In *Olin*, the court remanded to give Olin Corporation the opportunity to present scientific evidence. In *Hayes*, the court held that the policy at issue violated Title VII, though reasonable policies would not.

workers.¹³⁶ In reaching this conclusion, neither court used the BFOQ defense.

The courts took rather different approaches to reach this result without using the BFOQ defense. In *Hayes*, the Court of Appeals for the Eleventh Circuit held that a fetal vulnerability policy under which pregnant x-ray technicians were fired was only *presumptive* evidence of facial discrimination. Although the court conceded that "the Pregnancy Discrimination Act mandates that a pregnancy-based rule can never be 'neutral,'" ¹³⁷ it went on to hold that an employer could rebut the presumption of discrimination by showing "that although its policy applies only to women, the policy is neutral in the sense that it effectively and equally protects the offspring of all employees."¹³⁸ In any other context, the court would have held that once an employer admitted applying different standards to men and women, or to pregnant and nonpregnant persons, or to Catholics and Protestants, the only remaining issue would be the availability of the BFOQ defense.¹³⁹ The approach of the court in *Hayes* thus adds a new defense to overt discrimination on the basis of sex and pregnancy, a defense lacking any statutory basis.¹⁴⁰

In *Olin*, the Court of Appeals for the Fourth Circuit analyzed the case as though the sex-specific fetal vulnerability policy, limiting only the employment opportunities of fertile women, did not involve facial discrimination at all. Instead, the court analyzed the case as though the plaintiffs were challenging a facially neutral pol-

¹³⁶ *Olin*, 697 F.2d at 1190. See also *Hayes*, 726 F.2d at 1548.

¹³⁷ 726 F.2d at 1547. *Zuniga v. Kleberg County Hospital*, 692 F.2d 986 (5th Cir. 1982), involved a challenge to a fetal vulnerability policy like that at issue in *Hayes*, but the pregnant x-ray technician in *Zuniga* was fired prior to the PDA. Nevertheless, the Fifth Circuit's result in *Zuniga* was similar to the result in *Hayes*. In both cases, the court held that the policy at issue violated Title VII, though a more reasonable policy would not.

¹³⁸ 726 F.2d at 1548.

¹³⁹ The BFOQ defense is never available for distinctions based on race. 42 U.S.C. § 2000e-2(e).

¹⁴⁰ When an employee alleges that an employer has covertly discriminated on an impermissible basis, the employee's *prima facie* case of discrimination—creating an inference of discrimination on an impermissible basis—is only presumptive evidence of such discrimination. See *Texas Dept. of Community Affairs v. Burdine*, 450 U.S. 248 (1981). The employer can introduce evidence to rebut this inference, and the plaintiff then bears the burden of proving that, for example, a different standard was applied to men and women. *Id.*

The *Hayes* court used the *Burdine* approach in a case in which the employer overtly applied different standards on an impermissible basis (pregnancy). The *Burdine* approach is inappropriate in such cases, since the employer has admitted doing that which the *Burdine* approach seeks to determine: whether the employer actually treated, for example, men and women differently. See, e.g., *Manhart*, 435 U.S. 702 (*Burdine* model not used in case in which discrimination is overt); *Norris*, 463 U.S. 1073 (same).

icy with a disparate impact on women. Because the judicially created disparate impact model of discrimination was used, the judicially created defense of business necessity was also available.¹⁴¹ The court concluded that the business necessity defense would support a reasonable sex-specific fetal vulnerability policy. In reaching this result, the court explained that it was using the disparate impact model of discrimination, rather than the disparate treatment model, because "properly applied" the BFOQ defense could not justify sex-specific fetal vulnerability policies, however reasonable.¹⁴² Thus, the *Olin* court also recognized a defense to the disparate treatment banned by Title VII, a defense lacking any statutory basis.

B. Fetal Vulnerability Policies and the BFOQ Defense

Title VII bans any discrimination on the basis of race, sex (which includes discrimination on the basis of pregnancy or related medical conditions), religion, national origin, or color, unless justified by the BFOQ defense. Under this statutory exception, an employer can discriminate on the basis of "religion, sex, or national origin," but only if "religion, sex, or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of that particular business or enterprise."¹⁴³

Little is known about what sorts of discrimination Congress intended to permit under the BFOQ provision, especially with respect to sex discrimination. The prohibition against sex discrimination was added to Title VII on the floor of the House, on the last day of the House debate.¹⁴⁴ The addition of sex to the BFOQ provision was also added as a floor amendment.¹⁴⁵

It is unlikely that the BFOQ provision was intended to permit widespread discrimination on the basis of sex.¹⁴⁶ On the other

¹⁴¹ *Griggs v. Duke Power Co.*, 401 U.S. 424, 432 (1971).

¹⁴² 697 F.2d at 1185 n.21.

¹⁴³ 42 U.S.C. § 2000e-2. Title VII also contains several more particular exceptions to liability for overt discrimination, but these exceptions could not apply to fetal vulnerability policies. See, e.g., § 2000e-2(i) (allowing discrimination in favor of Indians by employers on or near Indian reservations); § 2000e-1 (allowing discrimination by religious organizations on the basis of religion and allowing employers to discriminate in employment of aliens outside the United States).

¹⁴⁴ Michael L. Sirota, *Sex Discrimination: Title VII and the Bona Fide Occupational Qualification*, 55 *Tex. L. Rev.* 1025, 1027 (1977).

¹⁴⁵ 110 *Cong. Rec.* 2718 (Feb. 10, 1964).

¹⁴⁶ The Senate rejected a version of the BFOQ provision that would have allowed discrimination whenever it would be "more beneficial to the normal operation of the particular business or enterprise involved or to the good will thereof than the hiring of an individual

hand, it is clear that the BFOQ was intended to permit discrimination in some cases in which sex is not an absolutely necessary qualification for the job. The legislative history gives two examples of permissible sex discrimination under the BFOQ provision: the preference of an employer hiring female nurses to care for elderly female patients¹⁴⁷ and "the preference of a professional baseball team for male players."¹⁴⁸

The BFOQ provision has been narrowly interpreted by the courts.¹⁴⁹ Discrimination on the basis of sex because of safety concerns has been allowed only in narrow circumstances. In *Dothard v. Rawlinson*,¹⁵⁰ for example, the Supreme Court indicated that danger to the woman herself does not justify discrimination. The Court allowed the employer to hire only male guards in contact

without consideration of his race, color, religion, sex, or national origin." 110 Cong. Rec. at 13825 (June 15, 1964). And the Interpretive Memorandum of Title VII presented to the Senate by the floor managers of the bill described the BFOQ as a "limited right to discriminate." Id. at 7213 (Apr. 8, 1964) (memorandum of Sens. Clark and Case).

¹⁴⁷ This example was given by Representative Goodell, in proposing on the floor of the House that the BFOQ be expanded to cover sex discrimination as well. Id. at 2718.

¹⁴⁸ This example was given in the Senate Interpretive Memorandum. Id. at 7213. The only other examples of any discrimination permissible under the BFOQ provision are "the preference of a French restaurant for a French cook," and "the preference of a business which seeks the patronage of members of particular religious groups for a salesman of that religion." These examples are also included in the Senate Interpretive Memorandum. Id.

¹⁴⁹ In addition to the cases discussed in the text, courts have allowed employers to discriminate on the basis of sex when no other alternative will protect a client's privacy. The privacy exception itself has, however, been narrowly construed. See *Sirota*, 55 Tex. L. Rev. at 1060 (cited in note 144). Employers also might be able to discriminate on the basis of sex when sex appeal is a truly critical aspect of the service being provided by the employer. Thus, a Playboy club might be able to discriminate on the basis of sex in hiring "bunnies," though an airline cannot discriminate on that basis in hiring stewards and stewardesses. See Charles A. Sullivan, Michael J. Zimmer, and Richard F. Richards, *Federal Statutory Law of Employment Discrimination* 140-41, 148-49 (1980); *Wilson v. Southwest Airlines Co.*, 517 F. Supp. 292 (N.D. Tex. 1981). An employer can also discriminate on the basis of sex when so-called "authenticity" is important to the job, the common examples being the employment of male actors and female actresses. See Sullivan, Zimmer, and Richards, *Employment Discrimination* at 148.

In addition, an employer can set different dress codes for men and women provided that the dress codes are more or less equivalent for men and women in terms of contemporary notions of proper dress wear. See, e.g., *Willingham v. Macon Telegraph Publishing Co.*, 507 F.2d 1084, 1092 (5th Cir. 1975) (en banc) (holding that such dress codes do not constitute sex discrimination within the meaning of Title VII and that consideration of BFOQ provision was therefore unnecessary).

An employer cannot, however, employ only males because (a) the job is dangerous; (b) the job is more dangerous for women (or most women) than for men; (c) a woman would face special difficulties because of likely harassment; (d) the job is beyond the strength of most women; (e) customers or co-workers prefer men; (f) employing women would be more costly. See Sullivan, Zimmer, and Richards, *Employment Discrimination* at 137-49; *Sirota*, 55 Tex. L. Rev. at 1027 (cited in note 144).

¹⁵⁰ 433 U.S. 321, 335 n.21 (1977).

areas of maximum security male penitentiaries only because more was at stake than the "individual woman's decision to weigh and accept the risks of employment."¹⁵¹ The Court found sex a BFOQ because the employment of a woman would create real risks of safety to others if violence broke out *because* the guard was a woman. Sex discrimination was tolerated because sex was related to the guard's ability to do the job: maintaining order.

Similarly, some courts have allowed airlines to lay off pregnant stewardesses at varying points during the first five months of pregnancy on the ground that the employer's policy was necessary to ensure the safety of passengers.¹⁵² Here, too, discrimination is permitted because pregnancy interferes with ability to do the job: pregnancy might prevent a stewardess from performing duties during an emergency.

Thus, although the BFOQ has been construed as allowing sex or pregnancy discrimination on the basis of safety concerns, the "safety exception" has been limited to instances in which sex or pregnancy actually interferes with the employee's ability to perform the job. This approach is consistent with the language of the BFOQ provision itself, which suggests that permissible distinctions based on sex must relate to ability to do the job. Unlike the safety of customers or even co-workers, the safety of the fetus is not directly related to ability to do the job.

The safety exception is, however, the result of judicial construction of a vague statutory provision; it could be extended to include distinctions based on fetal vulnerability. The BFOQ has, in a few other contexts, been construed as permitting discrimination unrelated to ability to do the job.¹⁵³ There are, however, two rea-

¹⁵¹ *Id.*

¹⁵² See *Harriss v. Pan American World Airways, Inc.*, 649 F.2d 670 (9th Cir. 1980); *Burwell v. Eastern Air Lines, Inc.*, 633 F.2d 361 (4th Cir. 1980); *Condit v. United Air Lines, Inc.*, 558 F.2d 1176 (4th Cir. 1977); *In re National Airlines, Inc.*, 434 F. Supp. 249 (S.D. Fla. 1977); *MacLennan v. American Airlines, Inc.*, 440 F. Supp. 466 (E.D. Va. 1977); *ALPA v. Western Air Lines*, 23 Fair Empl. Pract. Cases 1042 (N.D. Cal. 1979); *E.E.O.C. v. Delta Air Lines, Inc.*, 441 F. Supp. 626 (S.D. Tex. 1977), *rev'd and remanded without published opinion*, 619 F.2d 81 (5th Cir. 1980).

In two of these cases, the courts indicated that fetal safety was best left to the mother. *Burwell*, 633 F.2d at 371; *National Airlines*, 434 F. Supp. at 259.

¹⁵³ As the legislative history itself suggests, the BFOQ provision has never been limited to distinctions based on ability to do the job. It would, for example, be fairly difficult to describe the hiring of female nurses for elderly female patients or of only male baseball players as based on ability to do the job rather than on customer preference. But, with the exception of cases involving customer privacy and competitive sports (both of which are specifically mentioned in the legislative history), distinctions based on sex have been permitted only when sex is closely related to ability to do the job (e.g., sex may be a BFOQ for

sons why the safety exception to Title VII liability for sex or pregnancy discrimination should not be expanded to allow fetal vulnerability policies that mandate particular standards for pregnant or fertile women. First, such a construction is inconsistent with the plain language of the Pregnancy Discrimination Act and its legislative history. Second, women will not be adequately protected by a judicially enforced standard of reasonableness applied to sex-specific fetal vulnerability policies.

1. *The plain language and legislative history of the PDA.* The Congress that passed the PDA addressed a particular problem with a particular solution. The problem was the marginal status of women workers because of pregnancy or potential pregnancy: "The assumption that women will become pregnant [sic] and leave the labor force leads to the view of women as marginal workers, and is at the root of the discriminatory practices which keep women in low-paying and dead-end jobs."¹⁵⁴ The remedy chosen by Congress was a specific statutory standard protecting women from employer decisions based on their marginal status, a standard described thus in the statute itself:

The terms 'because of sex' or 'on the basis of sex' include, but are not limited to, because of or on the basis of pregnancy, childbirth, or related medical conditions; and *women affected by pregnancy, childbirth, or related medical conditions shall be treated the same for all employment-related purposes, including receipt of benefits under fringe benefit programs, as other persons not so affected but similar in their ability or inability to work.* . . . ¹⁵⁵

Both the House and Senate reports indicate that this statutory

Playboy bunnies). See, e.g., Sullivan, Zimmer, and Richards, *Employment Discrimination* at 148-49 (cited in note 149) (discussing possibility of BFOQ for Playboy bunnies). Employers cannot, however, make jobs sex-specific by adding a sex-related trait as a job requirement. For example, courts have refused to allow airlines to employ only female flight attendants by adding female sex appeal to the job. *Wilson*, 517 F. Supp. at 292.

Further, as a general matter, a very high correlation between sex and ability to do the job has been required for a BFOQ on the basis of sex. For example, when strength is necessary, employers cannot use sex as a proxy for strength, though it would be a fairly accurate one. Indeed, employers cannot even use height and weight requirements (which have a disparate impact on women) as a proxy for strength. Instead, employers must test individually to see whether a particular woman has the requisite strength. *Dothard*, 433 U.S. at 333.

¹⁵⁴ PDA House Report at 3 (cited in note 128). See also PDA Senate Report at 3 (cited in note 128) ("As the testimony received by this committee demonstrates, the assumption that women will become pregnant and leave the labor market is at the core of the sex stereotyping resulting in unfavorable disparate treatment of women in the workplace.").

¹⁵⁵ 42 U.S.C. § 2000e(k) (1982) (emphasis added).

standard was deliberately chosen to protect female workers from being treated as marginal workers by mandating that they be treated the same as an identifiable group of nonmarginal workers: others not so affected but similar in ability to do the job.¹⁵⁶

For historically marginal workers, a statutory provision mandating that they be treated like other workers similar in ability to do the job is of utmost importance. An employer can then treat the marginal workers in a particular way only if nonmarginal workers receive the same treatment.

In light of this statutory standard, the BFOQ defense should not be expanded to recognize safety concerns unrelated to actual ability to do the job in the context of pregnancy and potential pregnancy. To do so would be to remove the protection Congress adopted as the remedy for discrimination on the basis of pregnancy and potential pregnancy: women, perceived as marginal because of pregnancy or potential pregnancy, are to be treated like others "similar in their ability . . . to do the work."

Two bits of the legislative history of the PDA are particularly relevant to the question whether the BFOQ should be expanded to allow reasonable fetal vulnerability policies.¹⁵⁷ First, both the

¹⁵⁶ See PDA Senate Report at 4, 6 (cited in note 128) (emphasis added):

Under this bill, the treatment of pregnant women in covered employment must focus not on their condition alone but on the actual effects of that condition *on their ability to work*. Pregnant women *who are able to work* must be permitted to work on the same conditions as other employees. . . .

. . . under this bill, employers will no longer be permitted to force women who become pregnant to stop working *regardless of their ability to continue*. . . .

See also PDA House Report at 3, 4, 5, 6 (cited in note 128) (emphasis added):

[P]regnant workers [must] be treated the same as other employees on the basis of *their ability or inability to work*. . . .

The bill would simply require that pregnant women be treated the same as other employees on the basis of *their ability or inability to work*. . . .

The "same treatment" may include employer practices of transferring workers to lighter assignments, . . . so long as the requirements and benefits are administered equally for all workers in terms of *their actual ability to perform work*. . . .

In addition to the impact of this bill on fringe benefit programs, other employment policies which adversely affect pregnant workers are also covered. These policies include: refusal to hire or promote pregnant women; termination of pregnant women; mandatory leave for pregnant women arbitrarily established at a certain time during their pregnancy and not based on their *inability to work*. . . .

¹⁵⁷ In addition to the history discussed in the text, several statements made during the hearings on the PDA suggest that the PDA bans sex-specific fetal vulnerability policies. At both the Senate and the House hearings, the Chamber of Commerce submitted a written statement opposing the PDA because, among other things, it "would prevent an employer from refusing certain work to a pregnant employee where such work arguably posed a threat to the health of either the mother-to-be or her unborn child." Furnish, Prenatal Exposure, 66 Iowa L. Rev. at 78 n.72 (cited in note 5), quoting Discrimination on the Basis of Pregnancy: Hearings on S. 995 Before the Subcomm. on Labor of the Sen. Comm. on Human

House and Senate reports state that the time at which a pregnant woman should stop working depends only on her ability to do the work and how employers treat other employees similarly able to do the work.¹⁵⁸ Employment late in pregnancy often imposes risks on the unborn child, but Congress indicated that the employer may take into account only the woman's ability to work.

Second, the PDA's legislative history indicates that Congress considered women, whether or not pregnant, entitled to equal treatment regardless of significant additional costs to employers or fellow employees. Estimates of the cost of the PDA varied from a low of \$130 million a year (the AFL-CIO's estimate) to a high of \$571 million (the Health Insurance Industry Association's estimate). The estimate considered most reasonable by the congressional reports, the Department of Labor estimate, was a substantial \$191.5 million per year.¹⁵⁹ Thus, the fact that employers might face marginally higher risks of tort liability per employee for female than for male employees because of fetal vulnerability does not, in itself, justify a difference in treatment under Title VII.

2. *The inadequacy of employer decisions.* The other major problem with extending the BFOQ defense to permit "reasonable" fetal vulnerability policies is that women will not be adequately protected by employer decisions, even if courts review those decisions for reasonableness. An outright prohibition of such policies is

Resources, 95th Cong., 1st Sess. 482 (1977) ("PDA Senate Hearings"); Legislation to Prohibit Sex Discrimination on the Basis of Pregnancy: Hearings on H.R. 5055 and H.R. 6075 Before the Subcomm. on Employment Opportunities of the House Comm. on Education and Labor, 95th Cong., 1st Sess. 84 (1977) ("PDA House Hearings"). See also PDA House Hearings at 88 (oral statement at the House hearing to the same effect by a labor relations attorney testifying for the Chamber of Commerce).

At the Senate hearings, Senator Hatch asked an expert medical witness whether he thought that the PDA would raise "a whole slew" of "safety and health problems." The expert responded:

Let me put it this way: I have long been an advocate for a massive increase in research to deal with the effects of poisons, chemicals, physical and other agents on pregnant working women. However, two other things: Those agents are just as likely to affect the ovaries of nonpregnant women and there are in fact today companies that will not hire women on that specific basis.

But you would never dream of thinking that the same agents might also affect the testicles of men. So if we are talking about untoward effects of industrial processes on human procreation, we have to look at the effects on the testicles, and the effects on ovaries, and the effects on fetuses, all three, and we aren't doing much of that.

PDA Senate Hearings at 67 (cited in this note). Despite these statements, Congress passed the PDA without any exception for discrimination based on fetal vulnerability.

¹⁵⁸ See PDA Senate Report at 6 (cited in note 128); PDA House Report at 4-6 (cited in note 128).

¹⁵⁹ PDA Senate Report at 10; PDA House Report at 9-10.

the best approach for a number of reasons.

First, as long as individual employers are allowed to adopt or reject sex-specific fetal protection policies, such policies will be adopted only when women are perceived as marginal workers. But, as noted earlier, when women are perceived as marginal workers, a job is likely to offer substantial benefits to the excluded women and their dependents and potential offspring. Fertile women will be excluded only from higher-paying, traditionally male jobs and not from lower-paying, traditionally female jobs, even if fetal risks are the same. Pregnant women will be fired though the fact of pregnancy means that other employers are also likely to regard pregnant workers as marginal or unwanted. Often, the pregnant worker will be unable to find a job with comparable pay and benefits, including medical insurance.

Second, even the most "reasonable" sex-specific fetal vulnerability policy—one supported by evidence of heightened risk associated with maternal exposure—is likely to be discriminatory in several senses. Such a policy turns a difference between men and women into an advantage for men, and a disadvantage for women, without compensating women for imposing on them the costs associated with ensuring the safety of others.¹⁶⁰

In addition, such a policy is likely to be discriminatory in the sense that the employer would not adopt a similar policy were the heightened risk associated with paternal exposure. In the late 1970s, high levels of infertility and sterility were discovered in male workers exposed to the pesticide DBCP.¹⁶¹ Employers did not switch to all-female work forces nor to sterile workforces. Instead, the EPA banned the chemical for most uses three years after it was known to cause sterility in male workers.¹⁶²

In contrast, on the basis of animal data linking the pesticide TOK to birth defects through maternal exposure, the EPA requires that the manufacturer label TOK with this warning: "Women of childbearing age should not be involved with mixing/

¹⁶⁰ See Catharine A. MacKinnon, *Sexual Harassment of Working Women* 105 (1979): "[I]t is not only lies and blindness that have kept women down. It is as much the social creation of differences, and the transformation of differences into social advantages and disadvantages, upon which inequality can *rationaly* be predicated."

¹⁶¹ At least one lawsuit has been filed, alleging severe birth defects as a result of paternal exposure to DBCP. See note 120 above.

¹⁶² See Sonia Jasso and Maria Mazorra, *Following the Harvest: The Health Hazards of Migrant and Seasonal Farm Working Women*, in Wendy Chavkin, ed., *Double Exposure* 86, 95-96 (1984); *Reproductive Health Hazards* at 35-36 (cited in note 35).

loading or application of this product.”¹⁶³ Because of this warning, growers have denied employment to women. These different responses to evidence of female and male reproductive hazards tend to further segregate women at “the lower rungs of the agricultural workforce.”¹⁶⁴

A recent and comprehensive report on workplace reproductive hazards by the Office of Technology Assessment notes the different responses to evidence of female and male reproductive hazards:

The policy ramifications of th[e DBCP] incident are . . . significant. Male reproductive capacity was found to be endangered by DBCP, but men of reproductive age were not removed from their jobs. Instead, the hazardous agent was banned. In cases where the potential developmental hazard is paternally mediated, male workers have not been removed. The treatment of women workers in similar circumstances has, in certain cases, been reversed: when developmental hazards to the embryo/fetus have been identified, the women, rather than the hazards, have been removed.¹⁶⁵

There are several reasons why it is more likely that risks associated with maternal exposure will be perceived as justifying the exclusion of women than that risks associated with paternal exposure will be perceived as justifying the exclusion of men.¹⁶⁶ First, studies of reproductive hazards associated with occupational exposure have, with a few recent exceptions, focused on maternal rather than paternal exposure.¹⁶⁷ Thus, there is likely to be more evidence of risks associated with maternal exposure than of risks associated with paternal exposure.

Second, we are more worried by new risks than by familiar ones.¹⁶⁸ We are used to the risks associated with men’s employment in men’s jobs and women’s employment in women’s jobs (as

¹⁶³ EPA Reg. No. 707-92-AA, EPA Est. No. 477-MD-1, TOK WP-50 (produced by Rohm and Haps), reported in Jasso and Mazorra, *Following the Harvest*, in Chavkin, ed., *Double Exposure* at 96 (cited in note 162).

¹⁶⁴ Jasso and Mazorra, *Following the Harvest*, in Chavkin, ed., *Double Exposure* at 96. If TOK is harmful to male reproductive systems, some male workers may be harmed. But the point in the text is that decision makers tend to react differently to evidence of male and female reproductive sensitivity. Women are likely to have their employment opportunities restricted, but men are not.

¹⁶⁵ *Reproductive Health Hazards* at 35-36 (cited in note 35).

¹⁶⁶ See notes 100-01 above, describing different standards used by American Cyanamid’s medical director in deciding whether to exclude women and men.

¹⁶⁷ See, e.g., Nisbet and Karch, *Chemical Hazards* at 14, 22 (cited in note 71); Hunt, *Work and the Health of Women* at 155 (cited in note 77).

¹⁶⁸ See Edmund A.C. Crouch and Richard Wilson, *Risk/Benefit Analysis* 85 (1982).

well as women's work in their homes), and therefore we are more likely to worry about the risks associated with women's employment in men's jobs. Further, the fact that we do not know the precise dimensions of fetal risk associated with the employment of women in male jobs—though consistent with the risk being low and marginal relative to the background risks—operates, irrationally, to make us even more risk-averse when facing this new risk.¹⁶⁹

Third, the risk of fetal injury is more obvious when the worker is, or can become, pregnant.¹⁷⁰ Employers are less likely to worry about fetal injury associated with paternal exposure because the danger from paternal exposure is less obvious.¹⁷¹ Indeed, the tendency to associate fetal defects with mothers rather than fathers may result in attributing to mothers defects caused by fathers.¹⁷² Thus, concern for fetal safety is likely to lead to policies that turn a perceived difference into a disadvantage for women because women bear children.

Fourth, fetal vulnerability policies are more likely to exclude women than men because male traits and reactions are typically regarded as the norm and female traits and reactions (if different) as the exception for which some adjustment of the normal standard might be necessary. Scholars have noted this fact in discipline after discipline,¹⁷³ and studies of both physiology and occupational hazards have been guilty of this bias.¹⁷⁴ The importance of this insight in the context of fetal vulnerability is obvious. "Normal" peo-

¹⁶⁹ Id. at 82.

¹⁷⁰ Until very recently, occupational health researchers have tended to study *only* reproductive hazards for women workers (i.e., other kinds of hazards are excluded in studies of female workers), and to study *only other* health hazards for male workers (i.e., reproductive hazards are excluded from studies of male workers). See, e.g., Chenier, *Reproductive Hazards* at 44 (cited in note 95). See also notes 81-85 and accompanying text.

¹⁷¹ DBCP became a cause for concern only after male workers complained of actual harm: sterility.

¹⁷² See, e.g., Harold M. Schmeck Jr., *Genetic Flaws Can Come from Father*, N.Y. Times sec. IV, p. 20, col. 1 (Feb. 24, 1980) (recent evidence suggests that, although mothers have been "blamed" for Down's syndrome, 20 to 25 percent of the time the problem may be due to the father's chromosomes); Naeye and Tafari, *Risk Factors* at 6-7 (cited in note 71) (only rarely is evidence of damaged sperm recognized, though such sperm may cause teratogenesis, i.e., fetal malformation).

¹⁷³ Consider, e.g., Joan Acker, *Issues in the Sociological Study of Women's Work*, in Ann H. Stromberg and Shirley Harkess, eds., *Women Working* 134, 134 (1978) ("sociology has been, on the whole, the study of male society"); Simone De Beauvoir, *The Second Sex* xv-xvi, 41, 143-44 (H. M. Parshley trans. 1952).

¹⁷⁴ See, e.g., Stellman, *Women's Work* at 186-87 (cited in note 1), noting that because women have lower hemoglobin levels than men, some scientists have concluded that women suffer from a "relative insufficiency of iron"; the perception that women have iron-poor blood has in turn been used to exclude women from jobs involving lead exposure.

ple are not excluded from employment on the basis of health risks. If male (paternal) tolerance levels are considered "normal," policies imposing disadvantages on men, and giving women an advantage, are unlikely even when appropriate. Thus, evidence of differential fetal vulnerability is likely to be turned *only* into a disadvantage for women and an advantage for men.

Finally, there is the danger of judicial bias.¹⁷⁵ Commentators writing in 1977 and 1980 conclude that judges do not always give serious consideration to women's claims of discrimination.¹⁷⁶ Some judges have even dismissed such claims with overt hostility to the female claimants.¹⁷⁷ Judges are both more sympathetic to, and more likely to redress the injuries of, plaintiffs who claim that an employer has discriminated on the basis of race.¹⁷⁸ Unless fetal vulnerability policies are *per se* impermissible, women are likely to lose in many courts because their claims of discrimination will not be given serious consideration.

Consider the history of *Olin* on remand. As noted earlier, the Fourth Circuit remanded the case to the trial judge for his determination of the policy's legality under a "reasonableness" standard.¹⁷⁹ On remand, the class representative moved to be dismissed from the case because she was no longer interested in the job. Her lawyer also moved for his own dismissal. *Olin* moved for a hearing on the merits, and a hearing was scheduled. At the hearing, the

¹⁷⁵ See generally Report of the New York Task Force on Women in the Courts i (1986) ("[G]ender bias against women litigants, attorneys, and court employees is a pervasive problem with grave consequences. Women are often denied equal justice, equal treatment, and equal opportunity."); The First Year Report of the New Jersey Supreme Court Task Force on Women in the Courts 9 (1984) ("Although the law as written is for the most part gender neutral, stereotypical myths, beliefs, and biases are found to sometimes affect judicial decisionmaking in the areas investigated. . . . In addition, there is strong evidence that women and men are sometimes treated differently in courtrooms, in chambers, and at professional gatherings."); Margaret A. Berger, *Litigation on Behalf of Women* (1980); Mary C. Dunlap, *The Legal Road to Equal Employment Opportunity: A Critical View*, in *American Women Workers in a Full Employment Economy, A Compendium of Papers Submitted to the Subcomm. on Economic Growth and Stabilization of the Joint Economic Comm. of the Congress of the United States, 95th Con., 1st Sess. 61* (1977) (compendium cited hereafter as "Women Workers Compendium"); Lynn Hecht Schafran, *Eve, Mary, Superwoman: How Stereotypes About Women Influence Judges*, 24 *Judges J.* 12 (1985); Lynn Hecht Schafran, *Women as Litigators*, *Trial* 37 (Aug. 1983); John D. Johnston and Charles L. Knapp, *Sex Discrimination by Law: A Study in Judicial Perspective*, 46 *N.Y.U. L. Rev.* 675 (1971).

¹⁷⁶ Berger, *Litigation* at 36-39 (cited in note 175); Dunlap, *The Legal Road*, in *Women Workers Compendium* at 63-70 (cited in note 175).

¹⁷⁷ See Berger, *Litigation* at 38-39; Dunlap, *The Legal Road*, in *Women Workers Compendium* at 69-70.

¹⁷⁸ Berger, *Litigation* at 38-39 n.107, 42-43 n.114; Dunlap, *The Legal Road*, in *Women Workers Compendium* at 67-70.

¹⁷⁹ See note 135 and accompanying text above.

class representative and her lawyer were dismissed. The judge then heard Olin's evidence and entered judgment on the merits against the class and in favor of Olin.¹⁸⁰ The judge's willingness to enter a judgment after an ex parte hearing surely suggests that he did not take seriously claims that the policy discriminated against women.

Because many judges hold stereotypical views of women,¹⁸¹ they are likely to accept employers' arguments too readily, giving insufficient attention to the many troubling features that have been described here at length. For example, when custody is at issue, judges often regard maternal employment as a negative, expecting "good" mothers to stay home with their children after divorce.¹⁸² Judges with such attitudes are likely to regard women's economic responsibilities as far less important than more traditional maternal roles.

This concern remains after reading the decisions in *Hayes* and *Olin*. Although neither appellate court upheld the policy before it on the merits,¹⁸³ the standard adopted in these decisions is likely to be used by other courts to uphold sex-specific policies. In *Olin*, the court considered potential children analogous to personal service customers: third parties with no interest in maternal employment. The *Hayes* court ignored the effects of firing a pregnant worker. Both held that reasonable policies are permissible because of employers' desire to avoid fetal injury, without seeing any need to justify imposing the cost of fetal safety on women and their dependents. The appellate courts did require some evidence of differential risk associated with maternal exposure, but in both cases there were serious problems with the scientific evidence accepted.¹⁸⁴ Neither court seems to have realized that if individual

¹⁸⁰ Telephone interview with Joan E. Bertin, Nov. 6, 1985. The decision is reported as *Wright v. Olin Corp.*, 585 F. Supp. 1447 (W.D. N.C. 1984). The district court's judgment was vacated without prejudice to the class only after another appeal to and remand from the Fourth Circuit. *Wright v. Olin Corp.*, No. 84-1276 (4th Cir. Aug. 31, 1984).

¹⁸¹ See New York Task Force Report at 161-69 (cited in note 175); Schafran, 24 Judges J. at 13 (cited in note 175).

¹⁸² This is true even though most women must work after divorce to support their children. See New York Task Force Report at 169-71 (cited in note 175); Schafran, 24 Judges J. at 14-15 (cited in note 175).

¹⁸³ See note 135 and accompanying text above.

¹⁸⁴ In *Hayes*, 726 F.2d at 155, the court thought that it was adopting an authoritative scientific standard for x-ray exposure of pregnant women. Actually, the standard was based on policy judgments, not just scientific evidence. See Appendix text at note 214 below. In addition, the court misunderstood the standard and actually adopted a more restrictive one. See Appendix text at notes 207-09 below. And the court adopted the standard without any appreciation of the weakness of the scientific evidence of fetal risk at current exposure levels. See Appendix at notes 210-13 below.

employers are permitted to adopt sex-specific fetal vulnerability policies, such policies will be adopted only when women were perceived as marginal workers. Neither court considered the possibility that women might be competent decision makers.¹⁸⁵

In first amendment law, nondiscretionary standards have been crafted with an eye to the need to protect against judicial bias.¹⁸⁶ Given the danger of judicial bias when women challenge sex-specific fetal vulnerability policies, a nondiscretionary standard is appropriate here, too.

In light of the many problems associated with even the most "reasonable" sex-specific policy adopted by an employer—problems that cannot be solved by judicial review of employer decisions—Title VII's BFOQ defense should not be extended to permit sex-specific policies. Under Title VII, employers should not be able to respond to evidence of fetal vulnerability by adopting one set of exposure limits for fertile men and another for fertile or pregnant women.

Employers are, however, free to respond with policies that do not discriminate on the basis of sex. Employers can hire sterile women and men to ensure fetal safety. Employers can and should¹⁸⁷ give all employees and applicants information about reproductive hazards for both men and women in the same form.¹⁸⁸

In *Olin*, the district court ruled in favor of Olin after a hearing at which only Olin was represented. See text at note 180 above. The court relied on the "considerable body of opinion" supporting Olin's policy, though there was no evidence indicating that paternal risks were lower than maternal risks. The court nevertheless ruled for Olin because "Olin should not be required to allow women employees at a known risk to stay on the restricted jobs until there is scientific evidence compiled with respect to men." *Olin*, 585 F. Supp. at 1453 (on remand). Studies of reproductive hazards have, however, focused almost exclusively on maternal exposure. Nisbet and Karch, *Chemical Hazards* at 14, 22 (cited in note 71). The district court's approach gives women very little protection.

¹⁸⁵ In a footnote, the *Olin* court did indicate that a woman's right (under Title VII) to choose a job even when risky does not include "a right to make the same choices on behalf of her unborn children." 697 F.2d at 1189 n.25.

¹⁸⁶ See John Hart Ely, *Democracy and Distrust* 107-15 (1980) (first amendment doctrine should take into account, and guard against, judicial bias).

¹⁸⁷ Such warnings are required by existing regulations. See note 105 above.

¹⁸⁸ At *Olin*, women are given written information about reproductive hazards associated with controlled jobs (controlled jobs are described in note 41 above) and men are given oral information. This difference in treatment is not merely a formal violation of Title VII. Written information can more easily be shared with one's spouse. And male workers should be as able to share information with their wives as female workers are able to share information with their husbands. In addition, when men are given information orally about reproductive risks and women are given such information in writing, there is an implicit message that (regardless of the content of the messages) risks associated with maternal employment are more serious than risks associated with paternal employment. Perhaps the risks of maternal employment are more serious; if so, the information about reproductive risks should

In addition, employers should be able to offer appropriate options¹⁸⁹ to men and women interested in becoming parents and worried about fetal safety.¹⁹⁰ If only women face reproductive hazards, special options available only to women before or during pregnancy also should be permissible as forms of affirmative action.¹⁹¹

III. CONGRESS AS DECISION MAKER

Given the current lack of any firm evidence of differential risks to fetal safety from maternal and paternal exposure to hazardous substances, employment decisions should be left in women's hands. If in the future, additional evidence identifies some substance that causes a significantly higher risk to fetal safety as a result of maternal exposure, regulation still probably will be unnecessary. As long as women are given information about the risks, I think it is unlikely that they will take unreasonable risks. If evidence ever reveals that maternal exposure causes significantly greater risks to fetal safety than paternal exposure, and significant numbers of women who are likely to have children nevertheless take such jobs, some might consider regulation appropriate.

so state.

¹⁸⁹ An employer could, for example, offer optional procedures or safety equipment to ensure fetal safety to female and male employees interested in becoming parents in the future. The optional procedure or equipment for pregnant women might be different from the optional procedure or equipment for men. Or an employer could offer female and male employees the option of transferring to another job for various periods to ensure fetal safety.

¹⁹⁰ If women and men facing similar risks are given similar options, any difference in options and their availability should be regarded as the only way to treat equally beings who are not, after all, entirely identical with respect to the issue at hand. Slightly different sets of options do not turn a difference between women and men into an disadvantage for women and an advantage for men. Rather, the different options accommodate real differences, promoting actual equality for women and men trying to combine wage work and family life.

¹⁹¹ Title VII allows affirmative action programs under some circumstances to compensate members of "minority" groups for systematic disadvantages associated with their membership in the group. See *Local 28 of Sheet Metal Workers v. E.E.O.C.*, 106 S. Ct. 3019 (1986) (court-ordered race-conscious program); *Weber*, 443 U.S. at 193 (private employer's program). Special options for fertile or pregnant women should be permissible as forms of affirmative action, compensating women for the special problems they face because they bear children, and as permissible though the employer provides no similar options for men, provided that men face no similar problems. This is a little different, of course, from the form of affirmative action upheld in *Weber* (i.e., racial affirmative action offsetting historical discrimination). However, women will be fully integrated into the mainstream of American economic life only if it is possible for them to combine work and reproduction. And women face problems not shared by men in trying to combine these activities. See Herma Hill Kay, *Equality and Difference: The Case of Pregnancy*, 1 *Berkeley Women's L. J.* 1 (1985).

But such regulation should come from Congress, not employers.

Congress would be a better decision maker than employers and courts for a number of reasons.¹⁹² First, Congress would have no direct financial stake in the issue; its decision on whether to exclude would be less likely to turn entirely on whether women were marginal workers in the job in question. Second, although members of Congress might share many of the problems employers and courts have in regarding women's interests as distinct from those of their children,¹⁹³ members of Congress would be subject to political pressure from women who can vote. Women's interests would not be ignored entirely. Third, congressionally mandated protection policies would not necessarily shift the costs of fetal safety only to women and their dependents. In the political arena, women could demand and might receive some form of compensation for the costs imposed on them when their employment opportunities are limited for the safety of others.

If exclusion of all fertile women from some jobs proves to be appropriate,¹⁹⁴ direct or indirect compensation¹⁹⁵ should be given for the loss caused by exclusion.¹⁹⁶ Women and their dependents are disproportionately poor.¹⁹⁷ The cost of protecting the health of one group should not be placed entirely on another group in no position to bear it.

Similarly, if exclusion of pregnant women proves appropriate,

¹⁹² Whether at the present time, any regulatory agency (EPA, OSHA, NRC) has the authority to promulgate sex-specific regulations is not clear. NRC has published for comments a proposed regulation that discriminates on the basis of sex. See Appendix at note 205 below. And EPA has issued an unpublished "regulation" of a pesticide which requires that the manufacturer put on the label a warning that it should not be used by fertile women. See note 163 and accompanying text above.

If Title VII does ban all sex-specific fetal vulnerability policies, federal agencies are acting illegally in promulgating sex-specific regulations affecting employment opportunities. Congress has not, to date, authorized any agency to require (or allow) employers to violate Title VII.

¹⁹³ See note 63 above.

¹⁹⁴ Perhaps routine pregnancy testing should be used as an alternative option to allow fertile women to work at jobs involving exposure to rapidly eliminated chemicals. See notes 74-75 and accompanying text above. But this question should not be resolved in the abstract, without any information about the error rate when fertile women are informed of fetal risks and try to time pregnancies to avoid fetal injury. The little information available today suggests that women may be fairly successful at timing pregnancies to avoid fetal injury. See note 106 above.

¹⁹⁵ I use "compensation" in a very broad sense, to include any benefit that is given to women who have been excluded for the safety of others and that is designed (however roughly) to offset the cost that exclusion imposes on them.

¹⁹⁶ If Congress excludes women from jobs without compensating them, the legislation might be unconstitutional.

¹⁹⁷ See note 54 above.

some form of compensation (including medical insurance) is necessary to compensate the pregnant worker for the limits being imposed on her—at a time when she faces high medical bills and increased living expenses—for the sake of her child.¹⁹⁸ And something more than exclusion of pregnant women is necessary to ensure fetal safety. Fetal safety will be at risk because of exclusion unless the excluded pregnant worker receives income and medical insurance from some alternative source.

Although Congress is unlikely to have the time or interest necessary to regulate substance by substance, it could delegate to an agency the power to promulgate regulations excluding fertile or pregnant women from certain jobs if specified standards, for both exclusion and compensation, were met. The agency could be given the authority to promulgate cross-industry standards, protecting fetal safety whenever a certain level of risk exists. The agency could also be instructed to compensate women for the costs associated with exclusion in one of several (perhaps alternative) ways. For example, the agency could be instructed to require employers excluding fertile women from certain jobs to give women a preference, analogous to veterans' preferences, for an equal number of other jobs with equivalent pay and potential, preferably in the same locale. Or the agency could be authorized to give women such a preference itself, in either the private or the public sector.

If restrictions on the employment of pregnant women are appropriate, Congress could direct the agency to protect these especially vulnerable workers and their potential children by ensuring that the women are not simply fired with consequent loss of both pay and medical coverage. The agency could require that state workers' compensation systems treat pregnancy as a disability in such instances and provide both disability pay and medical coverage. The agency could also require that employers give leaves to pregnant workers for this period of disability. Or it could require that employers transfer pregnant women facing specified fetal hazards to other jobs during pregnancy, with no loss of pay or seniority and with the right to return to their former jobs after childbirth.

¹⁹⁸ I do not mean to suggest that the pregnant worker and her child have no interests in common. The pregnant worker is likely to be quite interested in fetal safety. She may, however, have other interests, such as supporting herself and her other children, paying her medical bills, and continuing her career. Despite these interests, she might gladly limit her own opportunities for the sake of her unborn child. But one cannot assume that externally imposed limits, designed to protect the unborn child, are in her interest.

It may be that the costs of ensuring fetal safety in some industries are much higher than in other industries, even for the same substance. Congress could authorize the agency, in this event, to promulgate industry-specific standards for exclusion and compensation.

Congress could also protect fetal safety by directly authorizing employers to exclude on the basis of fetal hazards, provided that employers met specified exclusion and compensation standards. For example, an individual employer could be allowed to exclude fertile or pregnant women provided it could show the level of differential vulnerability by sex required by the statute and provided it also compensated the excluded women according to the statutory standard, perhaps in some of the ways suggested above. Like Title VII, such a scheme could be enforced by the EEOC and private litigants.

By enacting or authorizing fetal vulnerability policies such as those described above, Congress could protect fetal health without turning the difference between the risks associated with maternal and paternal employment into an advantage for men and a disadvantage for women.¹⁹⁹ And, to the extent compensation was effective, the costs of fetal safety would not be borne entirely by women and their dependents, as is necessarily the case today with sex-specific policies instituted by employers.

Federal regulation would, however, be costly and perhaps ineffective. At both the agency and the congressional level, various interest groups might try to use the regulatory system to achieve purposes other than those described above. It might be difficult for Congress to ensure effective regulation in terms of either preventing the unreasonable exclusion of women or adequately compensating them.²⁰⁰

Given the problems and costs associated with regulation—including the possibility of congressional insensitivity to women's independent interests—regulation should be considered only if there is firm evidence that significant numbers of children are likely to be born with birth defects as a result of maternal oc-

¹⁹⁹ As Catharine MacKinnon has noted, rational discrimination is often unjust, turning a difference between men and women into an advantage for men and a disadvantage for women, thereby supporting "a system of second-class status for half of humanity." MacKinnon, *Sexual Harassment* at 105 (cited in note 160). See generally *id.* at 103-41.

²⁰⁰ See, e.g., Ann P. Bartel and Lacy Glenn Thomas, *Direct and Indirect Effects of Regulation: A New Look at OSHA's Impact*, 28 *J. L. & Econ.* 1, 3, 25 (1985) (suggesting that interest groups supported OSHA because it effectively, though indirectly, transfers wealth to large unionized firms).

cupational exposure, though their mothers were informed of the risks. In the immediate future, the problem of fetal vulnerability because of maternal occupational exposure should be handled by two simple rules: full disclosure of reproductive risks to working women and men, and no discrimination in employment on the basis of pregnancy or potential pregnancy.²⁰¹

CONCLUSION

The arguments supporting sex-specific fetal vulnerability policies have much in common with the arguments that supported sex-specific protectionist legislation around the turn of the century. In light of the troubling assumptions about women's roles and responsibilities that underlie proponents' arguments, even reasonable restrictions on the employment of women to protect potential offspring should not be casually accepted. Sex-specific policies, no matter how reasonable, discriminate on the basis of pregnancy or sex, turning a difference between women and men into a disadvantage for women and an advantage for men. Title VII, as amended by the Pregnancy Discrimination Act of 1978, prohibits discrimination on the basis of both pregnancy and sex, unless the BFOQ defense is extended to include concern for fetal safety. Such an extension would, however, be inconsistent with the language of the Pregnancy Discrimination Act, which mandates that women, whether pregnant or potentially pregnant, are to be treated like others similar in ability to do the job.

Extension of the BFOQ defense to recognize concern for fetal safety is inappropriate on policy grounds. There are four possible groups of decision makers: Congress, women, courts, and employers. Employers are not the best decision makers even with judicial review of their decisions for reasonableness. As long as employers can decide whether fetal safety should be protected, it will be protected only when women are regarded as marginal workers, which is precisely when employment is likely to offer unusual benefits to the woman and her living and potential children. In addition, judges may accept too readily a policy as reasonable. And there is a substantial risk that even the most "reasonable" policy would not have been adopted were the question one of excluding men on the basis of heightened fetal risk associated with paternal exposure.

Given the lack of any firm evidence of heightened fetal risk

²⁰¹ In addition, changes to workers' compensation systems should be considered, as suggested in text at note 123.

associated with maternal exposure, women should be regarded as competent decision makers. If there ever is firm evidence of the need for sex-specific policies, and women who are likely to have more children nevertheless accept dangerous jobs, Congress would be a better decision maker than employers. Congress could establish standards for exclusion and compensation of excluded women, so that the costs of fetal safety are not borne entirely by women and their dependents, one of the poorest groups in our society.

APPENDIX

The Use of Scientific Evidence
in *Hayes v. Shelby Memorial Hospital*²⁰²

Shelby Memorial Hospital fired Hayes when she became pregnant because its medical director considered any exposure of a pregnant woman to ionizing radiation excessive.²⁰³ The Court of Appeals for the Eleventh Circuit held that the firing violated Title VII only because Hayes's exposure during pregnancy would have been less than the 0.5 rem limit for fetal workplace exposure recommended by the National Council on Radiation Protection (NCRP), a congressionally chartered advisory group on radiation issues.²⁰⁴ The general standard for occupational exposure of radiation workers in the United States is 5 rem per year under Nuclear Regulatory Commission (NRC) regulations.²⁰⁵

There are three problems with the court's use of the apparently scientific and "authoritative"²⁰⁶ NCRP standard for occupa-

²⁰² 726 F.2d 1543 (11th Cir. 1984).

²⁰³ See notes 56-57 and accompanying text above.

²⁰⁴ The NCRP is a nonprofit corporation chartered by Congress in 1964. Among other duties, the NCRP is to "[d]evelop basic concepts about radiation quantities, units, and measurements, about the application of these concepts, and about radiation protection." Radiation Dose Report at 32 (cited in note 79). The NCRP standard for occupational exposure of employees in general is 5 rem per year, which is the same as NRC's general standard. See *id.* at 3.

²⁰⁵ 10 C.F.R. § 20.101(a) (1985) (for exposure of the whole body, the maximum allowable dose is 1.25 rem per calendar quarter; higher doses are permitted in some instances when the entire body is not exposed).

To date, NRC regulations set no special exposure limit for pregnant women. Employers are to inform women of the hazards associated with exposure during pregnancy and allow women to decide whether to continue to work. U.S. Nuclear Regulatory Commission, Nuclear Regulatory Guide § 8.13 (1975). All workers are to be notified of such hazards. 10 C.F.R. § 19.12 (1980). The NRC has, however, published proposed regulations that would limit occupational exposure of "declared" pregnant workers so that exposure of the fetus will not exceed 0.5 rem during pregnancy. Nuclear Regulatory Commission, Standards for Protection Against Radiation; Proposed Rule; Extension of Comment Period and Republication, 51 Fed. Reg. 1091, 1132-33 (to be codified at 20 C.F.R. § 20.208), 1110 (1986). "Declaration" of pregnancy is to be made by the pregnant worker on a "voluntary" basis. See *id.* at 1110. The Commission "recommends" that "conformance to this limitation should be achieved without economic penalty or loss of job opportunity and security." *Id.*

If sex-specific policies are illegal under Title VII, the proposed regulations, if promulgated, would not legalize sex-specific policies. See note 192 above. If sex-specific policies are illegal, employers concerned about the safety of pregnant workers' children could offer pregnant workers options such as temporary transfers to jobs with lower exposure, as suggested at notes 189-91 and accompanying text above. Mandatory sex-specific policies would, however, violate Title VII.

²⁰⁶ 726 F.2d at 1551.

tional exposure during pregnancy. First, the court misunderstood the NCRP standard and adopted a more restrictive limit than the NCRP's. The NCRP 0.5 rem standard refers to the level of exposure of the fetus, not the worker. The NCRP itself notes that for radiations of low penetrating power, the exposure to the fetus *in utero* would be within the 0.5 rem limit were the mother exposed to 5 rem (annual rate) at a fairly uniform rate.²⁰⁷ For x-rays with high penetrating power,²⁰⁸ the mother could be exposed to 1.5 rem, and fetal exposure would fall within the 0.5 rem limit.²⁰⁹

The second problem is the lack of any sound scientific basis for the NCRP's 0.5 rem standard.²¹⁰ The NCRP explains that "[t]he specific choice of 0.5 rem . . . was arbitrary."²¹¹ There is evidence of fetal damage at high levels of exposure to ionizing radiation. But as the NCRP explains: "To date, experimental attempts to increase cancer incidence by small doses of radiation to fetuses of animals have failed."²¹² The NCRP reports that in studies of

²⁰⁷ Radiation Dose Report at 3 (cited in note 79).

²⁰⁸ See Jeanne M. Stellman and Susan M. Daum, *Work is Dangerous to Your Health* 147 (1973).

²⁰⁹ See *Pregnancy Guidelines* at 23 (cited in note 61) (noting that as a general guide, it is safe to assume that fetal exposure is one-third the mother's); NRC Standards, 51 Fed. Reg. at 1110 (cited in note 205) (noting that under exposure limit of 1.5 rem per year for the mother, "it is likely that the fetus would receive less than 0.5 rem").

²¹⁰ In 1977, the NCRP issued a publication affirming its 0.5 rem standard for fetal exposure, which had originally been published in 1971. NCRP, *Radiation Dose Report* at 26 (cited in note 79); NCRP, *Basic Radiation Protection Criteria* 92-93 (NCRP Report No. 39, Jan. 15, 1971). In 1977, the United Nations Scientific Committee on the Effects of Atomic Radiation reported that virtually nothing is known about the risk associated with prenatal exposure at low dose rates. United Nations Scientific Committee on the Effects of Atomic Radiation, *Sources and Effects of Ionizing Radiation* 7-8 (1977).

More recently, the NRC assessed the scientific evidence of fetal risks associated with maternal occupational exposure to ionizing radiation as inconclusive:

There is no evidence which unequivocally demonstrates an increased incidence of cancers or hereditary effects in humans exposed to radiation at the exposure levels found in the workplace or in the environs of facilities licensed by the NRC. The observed incidence rate of fatal cancers, the observed fluctuations in normal incidence rates, and the relatively low radiation risk make demonstration of any slight increase due to radiation exposure essentially impossible to detect.

NRC Standards, 51 Fed. Reg. at 1101 (cited in note 205) (emphasis added). This same publication proposes a rule placing a special exposure limit on pregnant workers. *Id.*

²¹¹ Radiation Dose Report at 10 (cited in note 79).

²¹² *Id.* at 26. This publication reviews and readopts the standard originally announced, with little in the way of explanation, in NCRP, *Basic Radiation Protection Criteria* at 92-93 (cited in note 210).

There are some epidemiological data showing a correlation between maternal exposure to radiation for medical purposes and, for example, childhood leukemia. Radiation Dose Report at 22-24 (cited in note 79). But there are selection problems with this data; women who need such medical treatment during pregnancy are less likely to have healthy children. The NCRP reports that in studies without such selection problems, no radiation effect has

rats and mice, significant negative effects have not been observed at exposure levels of less than 15 rads (for x-rays, a rad is equal to a rem).²¹³

The third problem is that the apparently scientific NCRP standard for fetal workplace exposure is based on the nonscientific and questionable judgment that when a woman becomes pregnant, "[t]he need to minimize exposure of the embryo and fetus is paramount."²¹⁴ This is a value judgment; it cannot support a scientific standard. The subjectivity implicit in the NCRP's standard for workplace exposure of pregnant women is evident when this standard is compared to the NCRP's standard for medical exposure of pregnant women. In the latter case, the NCRP does not rank minimizing fetal exposure as "paramount" and, as a result, is more tolerant of fetal exposure.

In discussing the risks associated with maternal medical exposure, the NCRP states that even a single dose of 10 rads (10 rem for x-rays) at any stage of pregnancy creates only "a very small" increase in the normal risks of pregnancy.²¹⁵ The NCRP concludes that the risk is "negligible at 5 rad or less when compared to the other risks of pregnancy, and the risk of malformations is significantly increased above control levels only at doses above 15 rad."²¹⁶ Because most medical radiographic examinations (other than fluoroscopy) should expose the fetus to radiation of less than

been shown. *Id.* at 26; NCRP, *Medical Radiation Exposure of Pregnant and Potentially Pregnant Women* 4 (NCRP Report No. 54, July 15, 1977).

²¹³ NCRP, *Medical Radiation Exposure* at 54 (cited in note 212). These studies typically involve large single doses. The chance of damage from ionizing radiation is higher for a single dose of any amount than when that same exposure is spread over time in lower doses. A pregnant worker exposed to 5 rem per year is most unlikely to receive a single dose of 5 rem. Thus, even where there is evidence of fetal damage in animal studies as a result of single-dose exposure to 5 rem, such studies would be of limited relevance regarding the risk associated with a cumulative annual exposure of 5 rem at lower doses. Further, even if there were some evidence of fetal damage in animals, the correlation between negative effects with animals and with humans is unknown.

"Rem" measures biologic effect whereas "rad" measures radiation energy absorbed per gram. Biologic effect varies with penetrating power of the radiation absorbed; the lower the penetrating power, the greater the biological damage to the tissues reached by the radiation. See Committee on the Biological Effects of Ionizing Radiations, Division of Medical Sciences, Assembly of Life Sciences, National Research Council, *The Effects on Populations of Exposure to Low Levels of Ionizing Radiation: 1980, 13-14* (1980). "Rems are defined as a factor Q times rads, where Q is set equal to 1 for gamma and X-rays, and 20 for alpha particles. Thus, at equivalent energy depositions [i.e., rads] the alpha particle will produce 20 times the biological damage of gamma and X-rays." *Reproductive Health Hazards* at 94 (cited in note 35).

²¹⁴ NCRP, *Basic Radiation Protection Criteria* at 92 (cited in note 210).

²¹⁵ NCRP, *Medical Radiation Exposure* at 10 (cited in note 212).

²¹⁶ *Id.* at 11.

1 rad (1 rem for x-rays), the NCRP advises that "the probability of detectable effect induced by such exposures is so small as to be outweighed by *any* significant medical benefit."²¹⁷ In contrast, as noted earlier, the NCRP recommends that *cumulative*²¹⁸ fetal workplace exposure not exceed 0.5 rem.

The NCRP justifies the lower occupational limit for fetal exposure on the ground that the fetus has no choice but to accompany its mother to work; it should therefore be exposed to a maximum dose of 0.5 rem, which is the standard for the general population (in contrast to the occupational standard of 5 rem). The NCRP explains that medical treatment is different because the fetus of the pregnant client is a potential beneficiary of the medical examination.²¹⁹

Thus, the NCRP's 0.5 rem fetal workplace limit is based on questionable perceptions, attitudes, and values. In setting this

²¹⁷ Id. at 3 (emphasis added). See also Harold M. Schwartz, Hazards of Radiation Exposure for Pregnant Women, 239 J. Amer. Med. Assoc. 1907 (1978) (reaching similar conclusions on risks associated with exposure for medical purposes). Compare NCRP, Basic Radiation Protection Criteria at 14 (cited in note 210), where in determining that occupational exposure should not be limited for workers also exposed to radiation for medical purposes, the NCRP reasons: "The disruption of a person's way of life by denying him his job may be more damaging than the addition of a few rems per year to a necessary major medical exposure."

²¹⁸ Although scientists do not know the precise shape of the dose-response curve for ionizing radiation at low exposure levels, there is a consensus that lower doses are probably safer than higher doses even if there is no difference in total cumulative exposure. See, e.g., NCRP, Medical Radiation Exposure at 6 (cited in note 212); NRC Standards, 51 Fed. Reg. at 1101 (cited in note 205).

²¹⁹ NCRP, Medical Radiation Exposure at 3. The NCRP also justifies the 0.5 rem standard by presenting a worst-case hypothesis of the risks to the fetus of maternal exposure at the 5 rem level. The NCRP assumes that the dose-response curve is linear at the lowest levels of exposure, and extrapolates from epidemiological and experimental data at higher levels. Under these assumptions, and on the basis of a number of other guesses—for example, that there are 100,000 fertile women occupationally exposed to ionizing radiation and that 7,000 of them are pregnant each year—the NCRP concludes that exposure of the entire relevant female work force would result in 35 cases per year with serious effects. Without occupational exposure, for that number of pregnancies, there would be 287 cases per year of equivalent malformations and cancers from natural causes. Thus, there would be a relative risk of serious congenital malformations or early cancers of 1.12 for these workers relative to the background risks (a 12 percent greater chance of cancer or serious malformation). Radiation Dose Report at 5-7 (cited in note 79). Whether this risk is excessive is not susceptible to answer by the scientific method.

In addition, the worst-case scenario is a worse than worst-case scenario. In its publication on medical exposure of pregnant clients, the NCRP explains that a straight-line dose effect is unlikely given actual findings and theoretical considerations. NCRP, Medical Radiation Exposure at 6 (cited in note 212). Further, the NCRP assumes that every pregnant worker would be exposed to 5 rem in the absence of a special limit on exposure of pregnant workers, though as of 1986, the average exposure of United States radiation workers is under 0.5 rem per year. NRC Standards, 51 Fed. Reg. at 1103 (cited in note 205).

limit, the NCRP looked only at the risks associated with fetal workplace exposure and ignored the disadvantages of exclusion to both the pregnant worker and her unborn child. The NCRP did not see women as individuals with independent interests warranting any consideration in the risk-benefit calculus, and it perceived women's maternal responsibilities as biologic, ignoring their economic responsibilities.

As noted earlier in the main body of this article, one reason for holding that all sex-specific fetal vulnerability policies violate Title VII is that courts are likely to have difficulty evaluating scientific evidence. In *Hayes*, the court tried to adopt a standard it thought was scientific and therefore "authoritative," but it actually adopted a more restrictive limit because it misunderstood the standard itself. In addition, the court accepted a standard recommended by scientists and experts without any appreciation of how little evidence there really was of fetal risks when pregnant workers are occupationally exposed to 5 rem or less per year (the general worker limit in the United States) or of the nonscientific judgments implicit in the "scientific" standard.

Scientists might be able to tell us facts about the risks associated with occupational hazards—though they do not yet have much factual information about the reproductive risks associated with maternal or paternal occupational exposure. But the scientific method cannot identify the "reasonable" level of fetal risk for occupational exposure of pregnant or fertile women. That will always be a value-laden judgment. Such value judgments are, however, easily obscured when scientists purport to identify appropriate exposure limits on the basis of scientific evidence. It is difficult for a layperson to break through the scientific jargon to identify the points at which nonscientific judgments are being made.